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TAMPA'S MUNICIPAL SOLID WASTE MANAGEMENT SYSTEM: A CASE STUDY

APPLIED MANAGEMENT SCIENCES, INC.

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This study examines solid waste collection and disposal in Tampa, Florida. The background of the system, including location, geography, demography, climate, form of government, and the solid waste management agencies is described, and the characteristics of the system, including the services, equipment, and finances are discussed.

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TAMPA'S MUNICIPAL SOLID WASTE MANAGEMENT SYSTEM

A Case Study

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U.S. ENVIRONMENTAL PROTECTION AGENCY

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FOREWORD

Solid waste management systems are an integral part of the environment of nearly every citizen in the United States. Yet until recent years, these systems have not received the attention other visible residential services have enjoyed. This historical neglect has resulted in systems which may not be cost-effective, especially with respect to the rising cost trends encountered in solid waste management activities. These trends arise from two principal factors:

* Environmentally sound disposal methodology is being enforced or strongly encouraged; as a result, disposal sites and needed equipment are now expensive to procure and operate; and,

* The collection function is highly labor intensive. Thus, the costs of unskilled labor, which have been rising to meet socio-economic demands, have had enormous impacts on local agency budgets.

This rise in cost pressure has forced all levels of governmental organizations to consider more closely the management and costs of solid waste management activities.

Because efforts to upgrade solid waste management practices are in their infancy, there is still an obvious lack of data bases for evaluative and comparative analyses. This case study is one in a series of case studies of solid waste management systems which has been conducted under the sponsorship of the Office of Solid Waste Management Programs, U. S. Environmental Protection Agency. Kenneth Shuster and Cindy McLaren served as EPA project officers on the case study reported herein. The purpose of these case studies is to fill in this data gap with actual case histories of how cities are handling their solid waste problems.

Concerned agencies at all government levels, as well as private firms, will be able to access information of the following types:

* The management and operating characteristics of public sector solid waste management systems.

* The institutional forces which give rise to these characteristics.

* Those techniques that have been or are being applied to enhance the measures of productivity, aesthetics, level of service, and environmental control.

These agencies and firms can then use these comparisons to upgrade their systems according to the norms achieved in other cities of similar size, geographical location, and operational and institutional characteristics.

--ARSEN J. DARNAY
Acting Deputy Assistant Administrator
for Solid Waste Management
Office of Solid Waste Management Programs

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INTRODUCTION

The solid waste management system in Tampa, Florida was in a stressfull state at the time of the site visit in December, 1972. At that time, a very high level of service was offered for an unequitable fee and, consequently, the employees of the system were required to perform tedious tasks with a low financial return. Employee problems in terms of absenteeism and turnover were high, and although system management was fully cognizant of these difficulties, the political and economic atmosphere required a fairly conservative attitude toward change.

Since that time, system management has surmounted its obstacles and many years of work and research have resulted in a major modification in the level of service v.s. system costs equations. The city has apparantly been successful in implementing an abrupt transition from carry-out to curbside collection with no intermediate steps designed to ease acceptance problems.

This report does not present the details of the transition between the two systems. Rather, it establishes the conditions that predicated such a drastic change. Therefore, this report should not be considered to reflect the current characteristics of Tampa's solid waste management system. However, to clarify the picture we have added Appendix E which presents the significant developments which occured after the site visit.

The case study of Tampa, Florida was performed using a carefully structured interview technique. Initial contacts were made by both Office of Solid Waste Management Programs and Applied Management Sciences personnel

and interviews were scheduled at the convenience of the city personnel. During these interviews, notes were taken and tape recordings were made after obtaining permission from the interviewees. Extensive efforts were taken to require a minimum of city personnel time and whenever possible, existing documentation was solicited to support the general discussions. Table 1 presents the titles of the people interviewed in Tampa, the dates of these interviews, and the types of information obtained.

This report consists of five chapters, including the introduction. Chapter 2 is a systems description abstract which synopsizes the characteristics of the city and the collection and disposal systems. Chapter 3 presents the findings of the case study effort and identifies potential problem areas. Chapter 4 is a description of the city in terms of those parameters which can affect solid waste management operations. Finally, Chapter 5 reports the characteristics of the solid waste system in considerable detail. All aspects of the system are discussed and appropriate tabular data are presented.

TABLE 1: Data Sources and Information Types

Title	Date	Information Type
Superintendent, Department of Sanitation	11 Dec.	General System Characteristics
Assistant Superintendent, Department of Sanitation	11 Dec.	General System Characteristics Personnel Data
Assistant Controller	11 Dec.	Financial Data; Budget & Expenditures
Chamber of Commerce	11 Dec.	Description of the City
Fleet Specialist	12 Dec.	Equipment Maintenance Policies
Director of the Incinerator	12 Dec.	Disposal Data and Costs
Assistant Personnel Director	12 Dec.	Available jobs with Sanitation
Property Accountant	12 Dec.	Specific Equipment Data
Metropolitan Development Agency	13 Dec.	Urban Redevelopment View of System

2

SYSTEM DESCRIPTION ABSTRACT

City: Tampa, Florida

Contacts:

E. Jack Clark	- Superintendent, Department of Sanitation
Norman Conaty	- Assistant Superintendent, Department of Sanitation
Al Desilet	- Assistant Controller
Phil Nataro	- Fleet Specialist
Hoyt McClendon	- Director of Incineration
Oscar Valez	- Property Accountant
Chamber of Commerce	
Personnel Director of the City Metropolitan Development agency	

Dates of Visit: December 11 - December 13, 1972

Population Demography:

Date	Total	White	Other
1970	278,000	223,234	54,766
1960	275,000	228,800	46,200
1950	125,000	N.A	N.A. .

Area: 147 Square Miles
Density: 3,287 People per square mile
Mileage: 1,265 Road Miles

Collection: Table 2

Miscellaneous: The labor conditions associated with tub-out service in Tampa have caused a shortage of labor. The work is too strenuous during the hot, humid summer months to retain a stable work force. The department wishes to go to curbside collection but the political/economic climate prevents the implementation of this type of service.

Disposal: Table 3

Miscellaneous: The city is currently looking for additional landfills to supplement the incinerator. The capacity of the incinerator may be expanded to 1,000 tons per day in the future. The city is waiting to see if they can meet the new 1975 air pollution standards before making this decision.

TABLE 2: COLLECTION SYSTEM CHARACTERISTICS SUMMARY

Collection Function / Collection Variables	Mixed Refuse	Commercial	Street Cleaning	Bulky Wastes	Dead Animals	Rubbish
Number of Routes	75	11	8	2 Rotobooms 2 Support Trucks	None Specified	Collected with mixed refuse and Special pick-ups
Crew Size	4	2	1	1 per vehicle	1	4
Frequency of Service	2	1 to 6	Continuous	Continuous and on Request	On Request	Twice a week if bundled, once a week otherwise
Point of Collection	95% carry-out 5% alley	Curbside, Right of way	Streets	Curb	Anywhere except in home	Curbside
Method of Collection	None Specified	Hand and Mechanical	Mechanical Sweepers-10 Support Trucks-2	Portable Rotobooms	Hand	Hand
Stops	11,283 Per Month	Variable	-	-	-	Variable
Service Limitations	None	None	-	-	-	Must be bundled to be collected with trash
Incentive System	48 hour official but 35 hour real	None	None	None	None	Same as Mixed Refuse

TABLE 2: Continued

Collection Function / Collection Variables	Mixed Refuse	Commercial	Street Cleaning	Bulky Wastes	Dead Animals	Rubbish
Fund Source	User Charge into General Fund	User Charge into General Fund	General Fund	General Fund	General Fund	User Charge into General Fund
Tonnage	167,000 (est.)	61,500 (est.)	NA *	NA	NA	NA
Wage Scales (Hourly)	Driver 2.61 Start Helper 2.20 Start	Driver 2.61 Start Helper 2.20 Start	2.61 Start	NA	NA	NA
Unions	AFSCME-Limited Influence	Same	Same	Same	Same	Same
Annual Cost	3.6 Million Operating Cost only					
Comments	Workers Who Finish Monday-Tuesday Route Do Not Have to come in on Wednesday	Approximately 70% of the Commercial Accounts in the city	Central Business District is very clean	-	-	-

* Not Available

TABLE 3

DISPOSAL SYSTEM CHARACTERISTICS SUMMARY

Disposal Site / Disposal Variables	1	2	3
Type	Incinerator	Landfill	Landfill
Prepared Capacity	750 Tons per day	35 tons per per day	50 Tons per day
Expected Lifetime	25 Years (Minimum)	2 Months	1-2 years
Operating Costs (Including Overhead)	$580,771		
Start-Up Costs	$5.1 Million (approx.)	Unknown	Unknown
Location	McKay Bay	Robinson St.	Linebaugh St.

3

FINDINGS AND CONCLUSIONS

3.1: Findings

The solid waste management system of Tampa, Florida operates at a relatively high level of effectiveness. The streets of the city are exceptionally clean and there is very little vagrant waste. It is probable that this high level of service will be maintained, as the management team of the Department of Sanitation is well aware of past and present problems which have affected the system.

A major problem of the department in past years has been the lack of capital funds to purchase new collection vehicles. In both 1965 and 1970 the city borrowed from local banks to finance the acquisition of new collection vehicles. The department and the city have now started a sinking fund to finance the next fleet purchase. However, the fund does not make any provisions for inflation and rising equipment costs. Even without a provision for inflationary costs the sinking fund should eliminate the unnecessary financing expense which substantially increases the total purchase price of the equipment. The new sinking fund is maintained by the city rather than the department. Hopefully, these funds will be made readily available to the department when new vehicles are needed. In the past, it has not always been easy for the department to acquire capital funds through the city. The last capital budget submitted to the Mayor requested approximately $130,000 to create new positions and purchase new vehicles but the department received only ten percent of that amount.

The Department of Sanitation also recognizes the need to switch from carry-out service to curbside service. The management team of the Department of Sanitation conducted a study of the solid waste collection systems in 51 other Florida cities. This survey asked questions on the level of service, cost of providing the service, and other economic parameters which affect a system's efficiency characteristics. Based upon the results of this survey and other national surveys, the Department of Sanitation estimates it could save approximately one million dollars per year in labor costs by switching to curbside service. This savings would be reflected in a reduction from 75 routes with four men per truck, to 52 routes with three men per truck.

In addition to substantial cost savings, the conversion of the collection system to curbside service could substantially reduce employee turnover. The current turnover rate of 106 percent is not unexpectedly high, since an average collector walks between 15 and 19 miles per day while carrying loads of up to 75 pounds on his shoulder for a good portion of this distance. This work is made all the more difficult by the 80° to 90° temperatures which prevail in Tampa during the hot summer months. By switching to curbside service, the Department of Sanitation expects a fifty percent reduction in the labor force turnover rate. This would further decrease operating costs as training costs and the administrative expense of hiring and terminating workers would be reduced. Unfortunately, institutional constraints are currently impeding a change to curbside service.

In terms of costs, the Department of Sanitation in Tampa compares quite well with other cities offering carry-out service. Table 4 presents comparative data across a number of solid waste systems that have been studied in other research efforts. The costs have been normalized to a cost per service basis <u>for mixed refuse collection only</u> since Tampa and Atlanta offer two/week collection whereas the remaining cities have a one/week frequency. It is readily apparent that Tampa has achieved a fairly low cost but high service system.

TABLE 4
THE COST EFFICIENCY OF TAMPA, FLORIDA AND FOUR OTHER CITIES OFFERING CARRY-OUT SERVICE

Cost Parameter \ City	Tampa Florida	Atlanta, Georgia	Milwaukee, Wisconsin	Minneapolis, Minnesota	Tacoma, Washington
Cost/Service/Year	$15.44	$18.93	$29.14	$35.17	$19.00

One problem not fully resolved is the availability of future disposal facilities and sites. The major issue is whether or not the incinerator can meet the new air pollution standards required of all incinerator facilities by 1975. If Tampa's incinerator cannot meet this standard, the department will face a disposal crisis. Their current landfill sites are not adequate for all of the waste currently generated within the city, and they do not have any future sites selected. In addition, the city would be forced to continue to pay for the incinerator which they no longer could use. If the facility can be modified to meet the new air pollution standards, it will probably be expanded to a 1000 ton per day capacity. The foundations for the fourth 250 ton unit are in place and only the furnace will have to be constructed. The incinerator will adequately fulfill most of the long range disposal problems if it can be modified to meet the air pollution standards and the fourth unit is added to the existing structure.

The department also faces a problem in acquiring additional landfill sites for the disposal of incombustible materials. The two existing sites within the city only have a one to two year capacity. Efforts are currently being made to acquire a large site in Hillsborough County, but the department has not been successful to date. The problem includes securing a suitable site and obtaining the necessary capital funds.

3.2: Conclusions

The continued success of Tampa's solid waste system will be assured if the system is permitted to change to curbside service. There is a current shortage of available workers and a reduction in the workforce and improved

working conditions would substantially ease this problem. The cost savings of approximately one million dollars would also help to alleviate the financial squeeze on the department and the city. The executive management of the system consists of qualified and perceptive individuals. There is no question that the problems of solid waste management are very familiar to the staff and considerable efforts are being undertaken to anticipate and resolve them.

4

BACKGROUND OF THE SYSTEM

Incorporated in 1855, the City of Tampa is an old southern city which is the industrial hub of Florida. The city is located on the west coast of Florida, in Hillsborough County, approximately half-way down the peninsula. Within a 100 mile radius of Tampa are 21 of Florida's 67 counties. and 40 percent of the state's population. Regionally, the Tampa-St. Petersburg Standard Metropolitan Statistical Area, which includes Hillsborough and Pinellas counties, has a total population of a little over one million residents. Of this total, approximately 279,000 residents live within Tampa's city limits which makes Tampa the third largest city in Florida. Located within the city limits is the port of Tampa, the nation's eighth largest sea port. Along with the new $86 million Tampa International Airport, this port has made Tampa the distribution and trade center for Florida's west coast. The City of Tampa also serves as the financial center for northern and central Florida and is the home of such diversified industries as cigar manufacturing, citrus fruit canning, and steel production.

While Hillsborough County has enjoyed the rapid population growth which has characterized the entire state of Florida, the population of the City of Tampa has been virtually constant. Between 1961 and 1970, the population of Tampa has increased by only 4,000 residents, which has weakened the city's tax base and presented financial problems.

Another major problem confronting the city is adequate future disposal sites. Currently, Tampa uses an incinerator with a 750 ton daily capacity

and a landfill for bulk material and incombustibles. The incinerator may be expanded to 1,000 tons in the future. The new 1975 air pollution standards, required by the Environmental Protection Agency, may create a serious problem to the city. If the incinerator cannot be modified to meet these standards, it will be closed, leaving the city without an adequate long-term disposal site.

4.1: Location, Geography, Demography, and Climate

The City of Tampa, with an incorporated land area of 147 square miles, is the county seat of Hillsborough County. The city's land area comprises approximately 15.7 percent of the county's total land area at an elevation ranging from sea level to fifty feet above sea level.

An important problem facing the City of Tampa is a lack of population growth, as the city experienced only a 1.36 percent increase in its population between 1961-1970. During the same period, the county population increased at a rate of 25 percent including the city and 61 percent excluding the city. Additional growth within the city limits is limited by the availability of housing. Without demolition of single dwelling units and the construction of apartment buildings, the city does not anticipate a significant increase in the population growth rate over the next decade.

The non-white population in the city has increased from 16.8 percent of the population in 1960 to 19.7 percent in 1970. This group consists largely of blacks and Latin Americans. The county's non-white population was 12 percent including Tampa and 5 percent excluding Tampa in 1970. There appears to be a general movement of the non-whites into the city, similar to the general urban experience of the past decade. The total non-white population increased by 8,500 during this period and the white population decreased by approximately 3,000 people. Although there is a model cities agency in the city, there did not appear to be any significant amount of urban decay.

The lack of population growth has severely affected the city budget as revenue has not grown at a rate equal to costs. The budget squeeze

has been felt directly by the Department of Sanitation as two large bank loans were needed to finance the department's rolling stock. Paying these loans, replacing the entire rolling stock at one time, and building a reserve fund has created large financial problems for both the city and the department.

More favorable parameters reflecting the city's economic condition have shown a high rate of growth during the past decade. Bank assets have tripled and construction within the city has increased by 160 percent during this period. Other indicators of Tampa's economic growth are shown in Table 5.

Tampa's climate is very pleasant with an annual temperature of 72.2 degrees with temperatures rarely dropping below 40 degrees in the winter or rising above 90 degrees in the summer. The summer temperatures are moderate because approximately one half of Tampa's average rainfall of 50 inches comes during the summer months. In addition, Tampa's southern and western contours border salt water bays which moderate both winter and summer temperatures. A major problem develops if there is a prolonged frost in the area. In 1962,a three day frost killed a large amount of the tropical vegatation in the area. The clean-up campaign nearly doubled the Sanitation Department's normal operating cost and severly strained both men and equipment.

4.2: Form of Government and Organization

4.2.1: Form of Government

The elected leadership of the City of Tampa is comprised of a Mayor, seven City Councilmen, and the City Clerk. Each Councilman is elected from a distinct district and the district boundaries are changed as the population shifts within the city. The City Council elects one member as the Chairman. Under this strong Mayor form of government each elected official serves a four-year term.

The Mayor serves as the administrative executive of the city. He may appoint and remove officers and employees of the city, including department

TABLE 5

TAMPA'S DECADE OF DEVELOPMENT

— The FABULOUS GROWTH of a City —

Emphasized by this Statistical Comparison

Reproduced from best available copy.

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	PERCENTAGE CHANGE 1961-1971
COMMERCE												
Customs Receipts (Port of Tampa)	$ 7,471,69[illegible]	$ 7,851,290	$ 8,502,450	$ 10,031,330	$ [illegible]	$ 10,707,[illegible]	$ 11,[illegible]	$ 17,[illegible]	$ 17,117,[illegible]	$ 16,7[illegible]	$ 20,[illegible]	[illegible]
Motor Vehicle Registration (County)	223,162	233,704	244,971	253,897	[illegible]	272,[illegible]	283,[illegible]	287,[illegible]	307,[illegible]	333,831	364,[illegible]	[illegible]
Post Office Receipts (City)	$ 5,046,517	$ 5,309,153	$ 6,131,543	$ 7,051,613	$ 7,[illegible]	$ 7,[illegible]	$ 9,[illegible]	$ 10,[illegible]	$ 10,[illegible]	$ 11,362,339	$ 13,[illegible]	[illegible]
Sales Tax Collections (County)	$ 19,210,643	$ 24,129,418	$ 25,615,104	$ 27,039,294	$ [illegible]	$ 31,[illegible]	$ 32,[illegible]	$ 31,[illegible]	$ [illegible]	$ 34,096,993	$ 62,851,203	[illegible]
CONSTRUCTION (Value Building Permits)												
Tampa Corporate Limits	$ 46,[illegible]	$ 43,[illegible]	$ [illegible]	$ 51,[illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ 71,[illegible]	$ [illegible]	[illegible]
Tampa Suburban Area	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Total Greater Tampa Area	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
EDUCATION												
Daily Membership of Schools* (County)	79,721	81,970	85,716	88,963	91,608	94,272	95,443	97,136	99,686	102,092	103,497	30.32
EMPLOYMENT*												
Total Non-Agricultural (County)	112,700	115,500	119,600	125,500	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	170,000	[illegible]	[illegible]
Manufacturing (County)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	32,000	[illegible]	[illegible]
FINANCE												
Bank Clearings (City)	$2,097,116,170	$1,367,148,791	$2,711,503,667	$2,824,504,731	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Bank Deposits (City)**	$5,130,560,000	$5,516,175,000	$5,726,610,000	$6,440,451,000	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
Bank Deposits (City)	$ 420,316,000	$ 462,562,000	$ 487,001,000	$ 511,830,585	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	[illegible]
POPULATION												
Hillsborough County	427,[illegible]	440,[illegible]	452,[illegible]	464,[illegible]	[illegible]	482,[illegible]	487,[illegible]	[illegible]	[illegible]	*** 490,[illegible]	[illegible]	[illegible]
Tampa (Corporate Limits)	275,249	275,526	275,907	276,020	276,[illegible]	276,644	276,[illegible]	277,[illegible]	277,[illegible]	*** 277,[illegible]	279,[illegible]	[illegible]
TRANSPORTATION												
Air Passengers	967,[illegible]	1,[illegible]	1,[illegible]	2,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Air Cargo (Pounds)	11,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Port Tonnage (Port of Tampa)	13,[illegible]	13,427,164	15,[illegible]	17,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
UTILITIES												
Electric Customers (Service Area)	197,861	202,962	210,735	218,021	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	207,[illegible]	[illegible]	[illegible]
Electric Kwh Used (Service Area)	2,[illegible]	[illegible]	3,112,[illegible]	3,499,725,061	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Telephone Stations (County)	[illegible]	128,394	144,722	152,426	[illegible]	173,[illegible]	184,[illegible]	205,[illegible]	223,[illegible]	[illegible]	247,[illegible]	[illegible]
Water Consumers (City)	76,847	76,629	77,231	77,616	78,[illegible]	79,748	80,[illegible]	81,[illegible]	83,[illegible]	84,[illegible]	87,[illegible]	[illegible]
Water consumed (gallons) (City)	13,678,[illegible]	11,[illegible]	21,[illegible]	12,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

*Average for Year.

**Estimate

***Final Census Figures

PREPARED BY RESEARCH DEPARTMENT Committee of 100 GREATER TAMPA CHAMBER OF COMMERCE

and division heads, and he presents the annual budget to the City Council. The mayor is also empowered to create departments, bureaus, and commissions as required to accomplish city business.

The City Council acts as the legislative branch of Tampa's government. It is responsible for enacting legislation governing the city's operation, including the sale of alcoholic beverages, zoning regulations and boundaries, and taxation and finances. The City Council approves the annual budget and all expenditures of the city that exceed $2,500.

4.2.2: Organization

An organization chart of the City of Tampa is Shown in Figure 1. Various commissions oversee the activities of the "line" departments. The organization chart for the Department of Sanitation is shown in Figure 2. Prior to October 1971, the Department also controlled the city stockade. The inmates were hired as workers for the department when labor shortages arose. A more detailed organization chart for the incinerator plant is shown in Figure 3. The first shift is the regular day shift.

4.3: Solid Waste Management History

The major perturbation in the recent solid waste management history of Tampa was a three day walkout by the laborers in 1968. The cause of the walkout was general unrest about working conditions and pay scales. At the end of the third day the Mayor told all workers to report back to work or they would be fired. Most of the workers returned.

The net gain of the walkout was very marginal. Local 1284 of the American Federation of State, County, and Municipal Employees of the AFL-CIO gained recognition as a bargaining unit for the workers. The resulting negotiations between labor and management did not significantly benefit the workers. Prior to the strike the city was going to give all city employees a $.25 per hour pay increase plus a new longevity program. The longevity program would have provided annual bonuses to public employees after five years of service with subsequent increases for every additional five

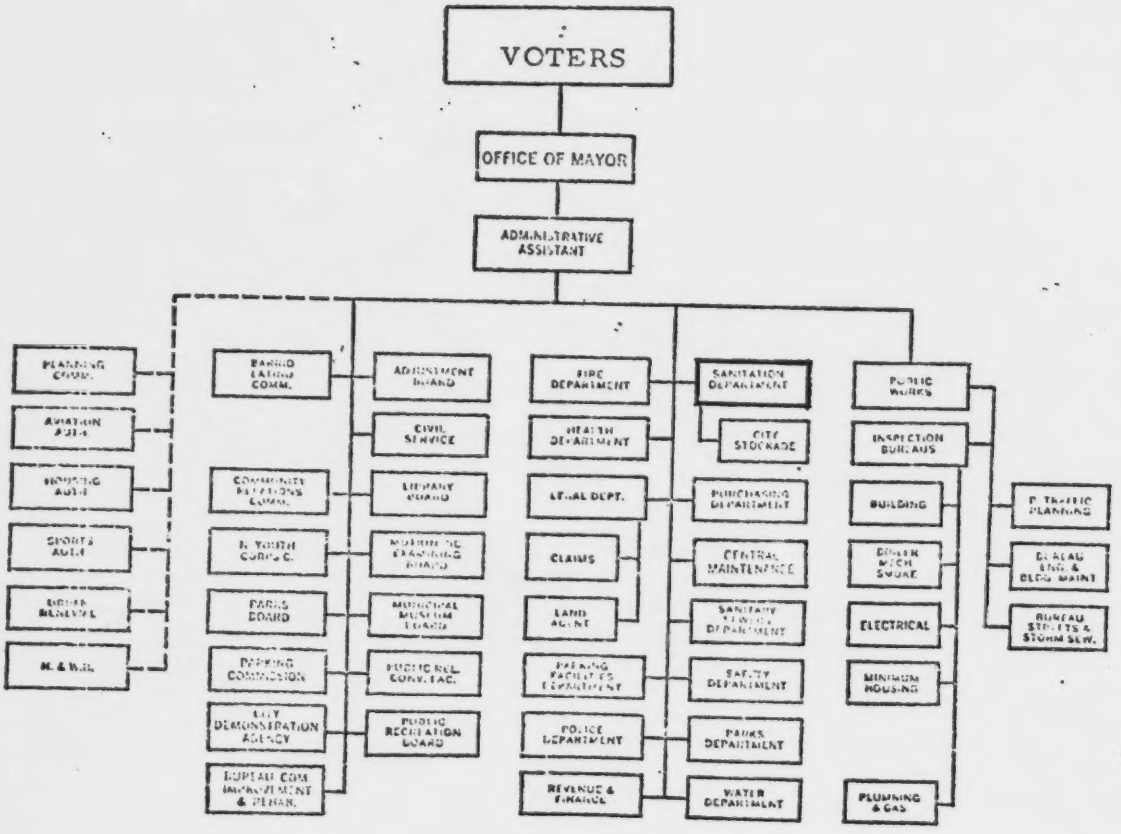

FIGURE 1: ORGANIZATION CHART FOR THE CITY OF TAMPA

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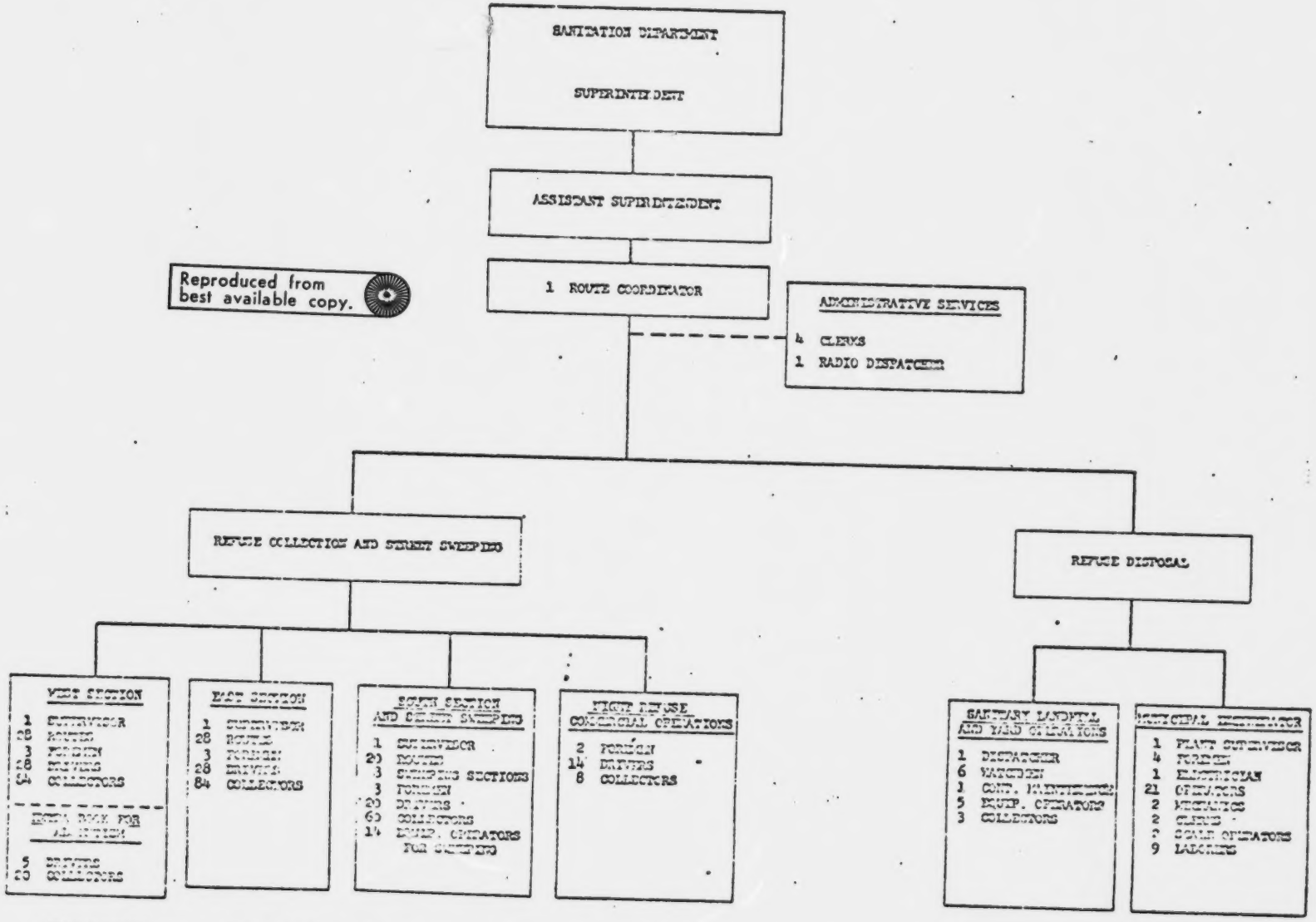
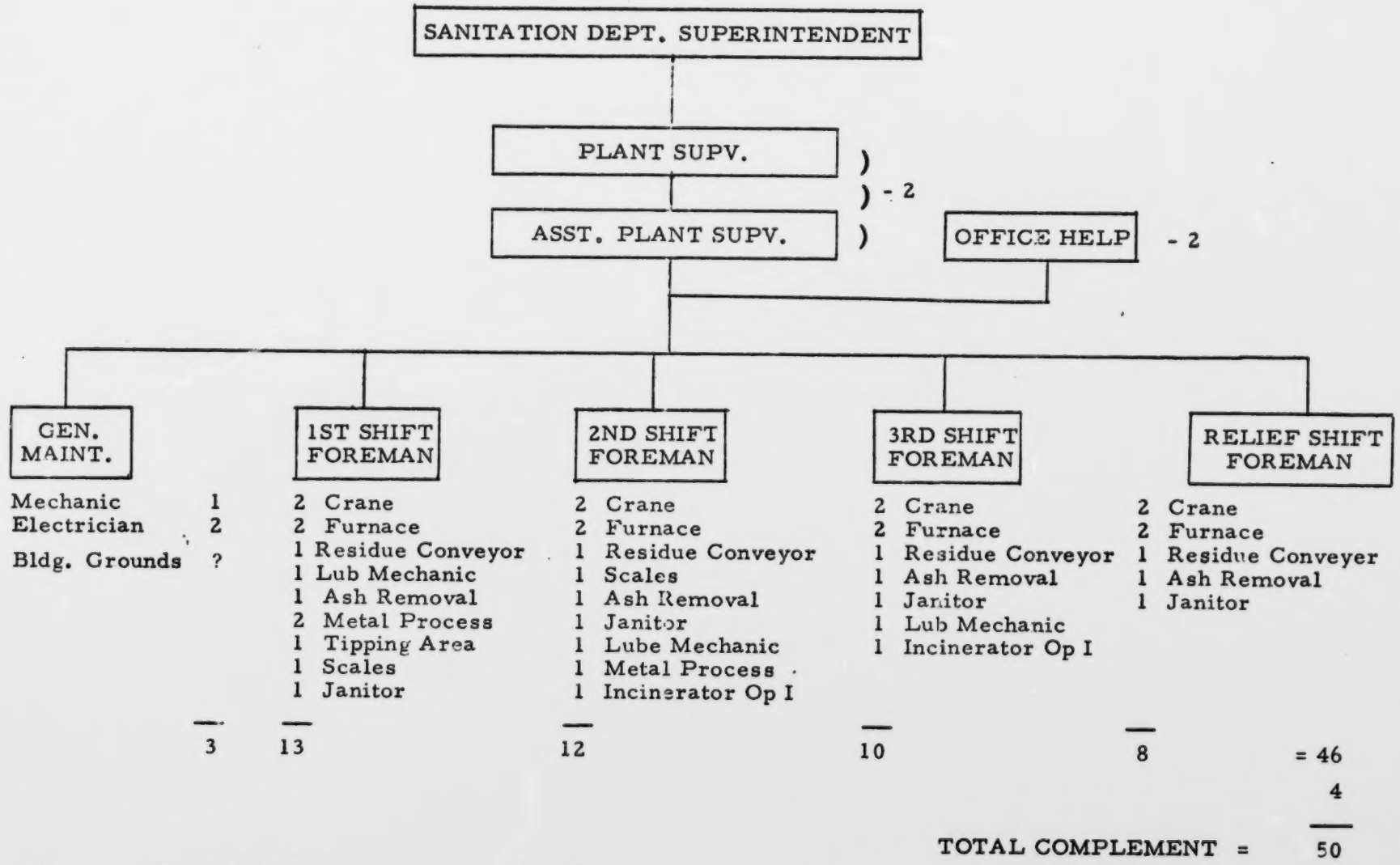


FIGURE 2: ORGANIZATION CHART OF THE DEPARTMENT OF SANITATION



Note: Relief shift driver will relieve metal process. Help with major maintenance.

FIGURE 3: ORGANIZATION CHART OF INCINERATOR PLANT

years of service. After negotiations, the workers received the pay increase and a temporary longetivity plan, but it was another three years before the final longevity plan was implemented.

In the same year, 1968, the new incinerator located at McKay Bay was put into service. The incinerator currently has an operating capacity of 750 tons per day and may be expanded to 1,000 tons per day in the future. This eliminated the city's dependency on landfill sites as a principal means of disposal.

The most recent change in the Department's operating procedure was the elimination of the city stockade as a Division of Sanitation. Prior to October 1971, the Department could occasionally use inmates as laborers on the collection vehicles. However, changes in the treatment of prisoners has eliminated this surplus labor force. This action has left the Department of Sanitation's work force at a minimal level.

4.4: Agencies Impacting Tampa's Solid Waste Management System

There are four groups which have had an impact upon the solid waste system in Tampa. One group is internal to the city government and the other groups are external.

4.4.1: State of Florida and its Solid Waste Management Plan

The State of Florida, with financial aid from the Environmental Protection Agency, surveyed all municipal solid waste management systems for storage, collection, disposal, and fiscal data. Using this survey as a data base, the state has urged the communities to update and improve their systems.

No particular plan was established for Tampa as a community, but many of the general suggestions are important. The state plan proposes that all communities develop long-range (20 years) solid waste management plans. This includes securing adequate landfill sites and/or updating incinerators to meet the new air pollution standards. In addition, the state plan encourages the communities to develop regional solid waste management plans.

4.4.2: Tampa Bay Regional Planning Council

A recent project of the Tampa Bay Regional Planning Council was to have devised a regional solid waste management plan. This project was contracted to a local consulting firm, which presented its findings in January, 1971. The results of the study were discouraging as the study team did not develop the regional plan; rather, facts and figures were presented with little analysis. To date, no action has been taken on this study.

The various counties comprising the Planning Council all recognize the need to develop a regional plan but there has been little cooperation between the members. Each county and municipality has a seperate solution to the problem and there has been a general lack of collaboration to reach a common, long-term solution.

4.4.3: The Tampa City Government

The Tampa City Government is included as a pressure group because political realities have prevented the Department of Sanitation from switching to curbside from carry-out service. The expected cost savings from this switch is approximately one million dollars per year and the Department anticipates a large reduction in labor turnover. At the time of the site visit, the Department of Sanitation expressed hope that the transition to curbside service could be passed this year.

4.4.4: The American Federation of State, County, and Municipal Employees.

The local union representing the Sanitation Department workers has put nominal pressure on the Department. The AFSCME currently has about fifty employees as members and they have been unable to recruit new members. The lack of membership is due to a relatively high city pay scale and benefit program. Also the high turnover within the department has prevented the union from securing a large membership.

The lack of support by workers has made the union relatively weak. A union office is maintained in Tampa but repeated phone calls and personal visits were fruitless since there was no answer.

5

SOLID WASTE SYSTEM CHARACTERISTICS

Tampa is the industrial, financial, shopping, and distribution center for Florida's west coast. Because the city is one of the state's major economic areas, Tampa has industries and possesses a population which makes the city's solid waste collection and disposal requirements very similar to the requirements of other major industrial cities in the United States.

The solid waste management system for Tampa is described in this chapter. Each solid waste function is discussed, focusing on duties and level of service, manpower and equipment allocations, efficiency, productivity, and quality of service. Separate sections of this chapter concentrate on disposal operations, equipment description and maintenance data, financing, and other aspects of Tampa's solid waste system.

5.1: Collection Operations of the Sanitation Department

The Sanitation Department in Tampa is responsible for the collection of all solid waste generated by residential units and approximately 70 percent of the solid wastes from commercial establishments. The remainder of the commercial and all of the industrial solid wastes are collected by private contractors. The Refuse Collection and Street Sweeping Division is responsible for all collection operations within the Sanitation Department. Within the Division, there are three distinct collection functions - residential collection, commercial collection, and street sweeping.

5.1.1: Residential Collection

Duties and Level of Service

City Ordinance 4907-A provides for the removal of solid waste by the Sanitation Department as well as a description of all acceptable solid waste receptacles (Appendix A). Rules and regulations are distributed to all residents by the Sanitation Department (Appendix B). The citizens of Tampa currently receive backdoor collection with tubs although management, citing potential savings of 30 percent in operating costs, has frequently requested that the Mayor and City Council approve curbside collection. The Sanitation Department management believes that curbside collection is inevitable, and hopes that the switch will be made beginning October, 1973. Tampa's mayor favors curbside for practical (financial) reasons.

Each residential unit is serviced twice weekly and, although yard wastes (brush, tree trimmings, leaves grass, etc.) are collected with mixed refuse, they must be bundled (in lengths not exceeding four feet) and placed in containers at the curb by residents. Separate brush and mixed refuse collections were officially discontinued in 1966.

The curbside restriction also applies to newspapers, magazines, and other trash. If bundled or containerized and placed at the curb, these materials will be collected twice weekly along with mixed refuse by the tub-out crews. Otherwise, if yard wastes and other trash are placed at the curb but not bundled or containerized, trash trucks will collect once per week. Management has adopted this policy even though Section 18-66 of the Tampa City Code prohibits the placing of unbundled trash (other than yard wastes) at the curb (Appendix A). The Sanitation Department admits that loose truck and yard wastes do present a very serious problem in Tampa, and management has made an effort to solicit community cooperation by notifying residents of violations (Appendix C). No limit is placed on the amount of refuse collected, and management reports that weights exceeding fifty pounds per dwelling unit, particularly during the hot summer months, are not uncommon (it has been

estimated that yard wastes exceed 1000 tons per week during the growing season). The average distance from the cans to the truck is about 50 feet. In an effort to reduce both collection time (residential crews operate on a task incentive system) and walking distance, collection laborers will serve two houses wherever possible (See Figure 4).

Because there are very few alleys in the entire city and because most of the existing alleys are narrow and in the older sections, passage of the larger packer trucks is virtually impossible and only a very small portion of the residential collection operation is performed in the alley (the Sanitation Department uses five 16-cubic-yard packers on routes with alleys). Management estimates that solid wastes collected from alley pickups represent less than five percent of the total volume.

All dwelling units are assessed a user charge of $3.00 per month, and residents are billed on their water and sewage service billings. The user charge began in 1960, and the $3.00 rate has been in effect since October, 1968.

Open trucks for bulky articles, such as household appliances and furniture, canvass the entire city and respond to customer requests for service (there are eight to ten open truck routes). Home repair wastes not involving a contractor are "reluctantly" collected upon request by the open trucks, but there is a special service charge of $20.00 for either a full or a partial truckload. Management prefers that homeowners use private haulers for building materials whenever possible.

Manpower/Equipment Allocations

Residential collection crews consist of a driver, an assistant driver, and two laborers. The city is divided into 75 residential routes; one-half of the routes are serviced Monday and Thursday, and the remainder are covered on Tuesday and Friday.

The Sanitation Department operates on a "10-10-8-10-10" workweek. That is, the official workweek is forty-eight hours; however, Wednesdays are off-days for all crews who complete their Monday-Tuesday assignments.

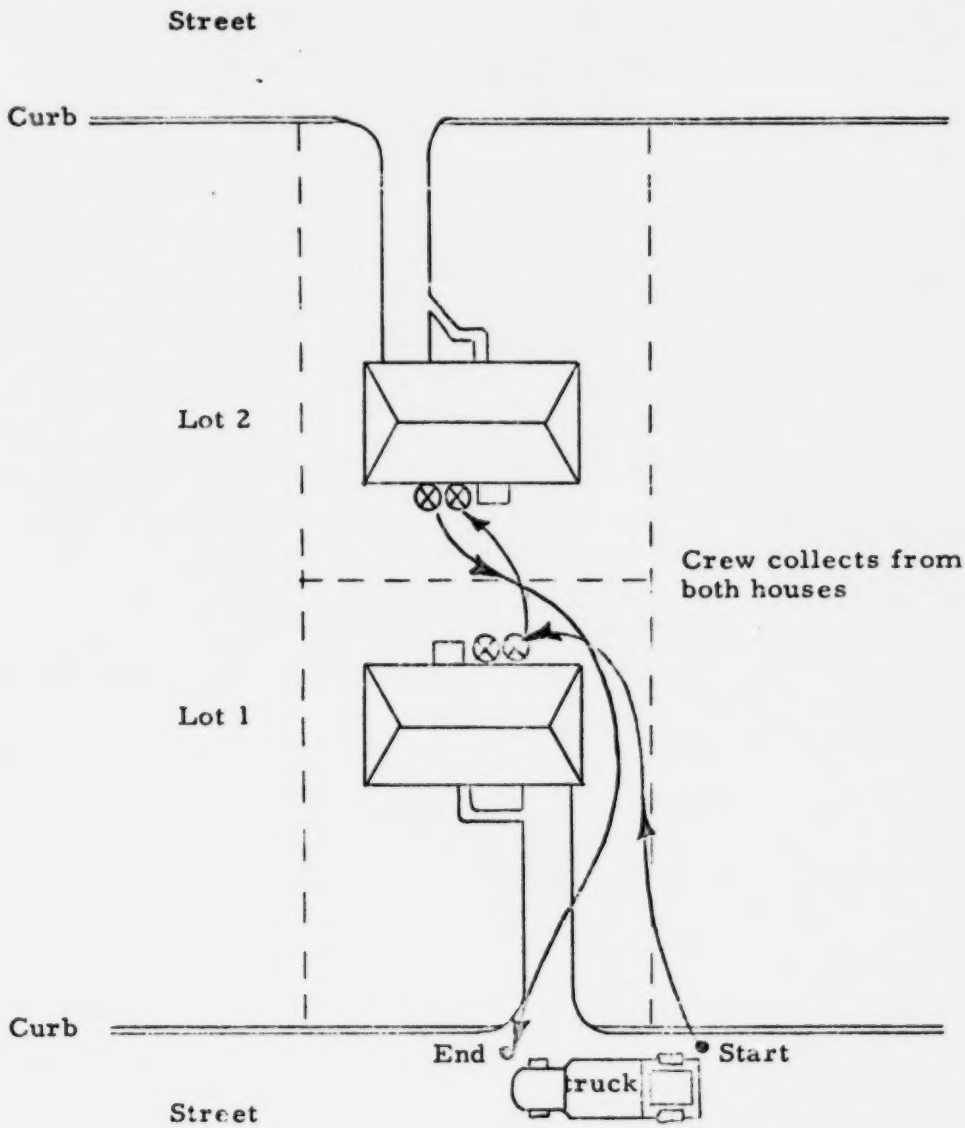


FIGURE 4: BACK YARD TUB COLLECTION FROM TWO ADJOINING LOTS

This policy has been in effect since 1966. Generally, route completion times on Thursday and Friday are substantially less than 10 hours.

Approximately 350 of the Department's 450 personnel (there has been a general employment cut-back since 1960) are assigned to residential collection. The equipment consists primarily of 20-cubic-yard rear-loading packers. Side-loaders are no longer used in Tampa because of the higher injury rates experienced with those vehicles. There are 98 rear-loading packers, 15 open flatbed trucks, 3 trash trucks, 2 dump trucks, and 1 trash trailer which are used by residential collection personnel. A reserve fleet of older trucks is kept, numbering about 10 percent of the active trucks. Table 6 presents the manpower and equipment allocations within Tampa's Sanitation Department.

Current and Future Developments

Maintenance data is already computerized, and the Sanitation Department hopes to have computerized data display "in the near future." This may be unrealistic, however, given the financial constraints which exist in Tampa.

The Sanitation Department has been approached by private companies promoting computerized districting and routing models and other optimization techniques. Management has not been favorably impressed by the proposals citing that most automated methods "don't include the human element."

The Superintendent of the Sanitation Department is also involved with committee meetings and the Chamber of Commerce. Architects and city planners now consult more frequently with the Sanitation Department during the design phase before continuing on with construction in order to make sure that all necessary facilities for solid waste collection have been incorporated into the project layout.

5.1.2: Commercial Collection

Duties and Level of Service

The Sanitation Department collects solid wastes from approximately 70 percent of the commercial establishments in Tampa. Collections are

TABLE 6

MANPOWER AND EQUIPMENT ALLOCATIONS BY FUNCTION, 1972

Function	Administration						Mixed Refuse Collection 1/							Street Cleaning		Disposal: Landfill and Incinerator												
Labor Classification	S	AS	TDC	SC	CL	D	F	SP	M	AD	DR	LAB	WM	SWO	WM	F	MF	SP	ASP	DOZ	CR	FO	RR	PE	MM	LM	LAB	WM
Number	1	1	1	2	4	1	12	3	1	105	76	178	1	11	1	4	1	1	1	2	8	8	5	1	1	1	10	1
Equipment																												
Rear-Loading Packer 16 cu. yd.										5																		
20 cu. yd.										93																		
Front-Loading Packer 25 cu. yd.										4																		
Dump Trucks, 10 cu. yd.										2												3						
Dump Trash Trailer										1																		
Transport w/Trandem 10 cu. yd.										2																		
Pick-up Truck, 3/4 ton										4												1						
Flatbed Truck, 2 1/2 ton										5				3														
Trash Truck										3																		
Lift Truck																						1						
Mechanical Sweeper														11														
Truck w/Crane										2												1						
Crawler										1																		
Bulldozer										2																		
Payloader										1																		
Pumps										3																		
Automobiles							12									4												

1/ The distribution of direct manpower among mixed refuse, bulky item, and commercial collection is approximately 300, 49, and 40 men respectively. The figures presented in the table do not include an extra-board of about 30 men.

TABLE 6 (Continued)

DEFINITION FOR HEADERS

AD	Assistant Driver
AS	Assistant Superintendent
ASP	Assistant Supervisor
CL	Clerk-Typist
CR	Crane Operator
D	Dispatcher
DOZ	Bulldozer Operator
DR	Driver
F	Foreman
FO	Furnace Operator
LAB	Laborer
LM	Lubrication Mechanic
M, MM	Maintenance Man
MF	Maintenance Foreman
PE	Plant Electrician
RR	Residue Removal Operator (Incinerator)
S	Superintendent
SC	Secretary
SP	Supervisor
SWO	Street Sweeper Operator
TDC	Technical Department Coordinator (Research)
WM	Watchman

made from hoist-type as well as regular containers; and, similar to residential collections, bulky articles are removed on request.

Unlike residential collection crews, commercial collection personnel do not operate on a task incentive system. In addition, there are two shifts, morning and evening, operating six days per week. Commercial customers are responsible for the condition of their storage sites but the Sanitation Department does replace damaged containers on commercial routes, and repair work is performed by the Maintenance Division. The Sanitation Collections are made from one to six times per week, and commercial customers are assessed a user charge of $1.25 per cubic yard collected, a rate which has nearly doubled since its inception in 1960.

Manpower/Equipment Allocations

Morning and evening commercial operations are allocated 2 foremen, 14 drivers, and 8 collection laborers from the mixed refuse collection force. The equipment consists primarily of four recently purchased 25-cubic-yard front-loading packers plus several 20-cubic-yard rear-loading packers equipped with special back hoists.

The men and equipment are divided unequally among 11 commercial routes. Some crews cover as many as six of the routes while others service only one during an eight-hour shift. Commercial crews consist of either two or three men. Routes with a significant portion of tub-out are served by trucks with one driver and two collection laborers. Commercial routes comprised of container stops are served by the front-loading trucks manned by one driver and one collection laborer.

5.1.3: Street Cleaning

The remaining solid waste collection function performed by the Sanitation Department involves the street cleaning operation. Unlike the problems which have been encountered in the residential and commercial mixed refuse collection operations, management is quite proud of the street sweeping operation and considers it "among the best in the country." The equipment is quite old, however, and recently the department purchased two new units.

The mechanical brooms are manned by an equipment operator who generally knows more about the mechanical operation of the sweeper than personnel at the Maintenance Division. Operators are responsible for first-line maintenance and are required to check oil, water, tire pressures, and gas regularly. Because the mechanical brooms are relatively sophisticated pieces of equipment, the Sanitation Department trains the sweeper operators to grease, clean, and make minor adjustments to the vehicles. As a result, when the sweepers go to the shop for repair, the operators usually assist the mechanics. Street sweepers are supported by 2 trucks equipped with "Rotoboom" attachments. Like the sweepers, one-man crews are used for the support trucks.

The city is divided into eight street cleaning sections. The Central Business District receives the major portion of the cleaning effort. Management frankly admits that it cannot remember when some outlying residential areas were last serviced. The information available for the street sweeping operation is provided from a foreman's report and naturally focuses on man-hours and miles rather than gross tonnages (for a sample report, see Figure 5). During the past fiscal year, the eleven Elgin and Wayne Street sweepers covered 101,478 miles, or approximately 9,200 miles per vehicle, which is equivalent to 30-35 miles per day.

In addition to the mechanical street cleaning operation, there is one man assigned to hand sweep the curbs and sidewalks in the Central Business District.

5.2: Productivity and Quality of Service

5.2.1: Efficiency and Productivity

On the average, Tampa's residential crews collect approximately 645 tons daily. In recent years, seasonal effects have been diminishing. According to management, there was once a considerable variation in residential collection tonnages, due mostly to yard wastes, but commerical fertilizers are now being used by homeowners to stimulate winter growth. Foliage is tender, and frost does present a considerable problem. Ten years ago, several days of sub-freezing temperatures necessitated a two shift

Weekly Report_____

Area #_____

Sweeper #_____

Replacement Sweeper #_____

Assigned

Operator_____

_____
Operator's Signature

Foreman_____

Do not write in this space:

Total Hours Worked:_____

Total Miles Swept:_____

Days Did Not Go Out, Why:_____

_____

Foreman Remarks:_____

_____

_____

_____

	Time left YARD	Time return YARD	Mileage reading START sweeping	Mileage reading END sweeping	HOURS spent actually sweeping	Date changed GUTTER BROOM	Date changed MAIN BROOM	Mileage reading back in YARD	Was DAILY MAINTENANCE performed & Sweeper WASHED?	OPERATOR REMARKS -
Monday										
Tuesday										
Wednesday										
Thursday										
Friday										

FIGURE 5: SWEEPERS OPERATION

operation of most collection vehicles for a year to remove all vegetation killed by the freeze. Like most cities, Tampa's daily mixed refuse tonnage is relatively stable and, because the trash tonnage fluctuates, trash presents greater collection problems than garbage. Also, Mondays and Tuesdays are the "heavy days." In the summer, for example, completion times on Mondays and Tuesdays for many routes frequently exceed 10, 11, and even 12 hours. And, in some cases, residential collection foremen will require crews to return on Wednesdays to complete routes which they were unable to finish on the first two days of the week. Efficiency and productivity data for Tampa's solid waste system are shown in Table 7.

Management stated that there are 15-19 street miles on the average "working" route. Since each working route is split between Monday-Thursday and Tuesday-Friday, collection laborers work routes of 7.5 - 9.5 miles daily. When round trip distances for collections are taken into consideration, the estimated total walking distance for the average collection laborer is nearly 15 miles (Table 8).

Although collection quantities from individual units can average as high as fifty pounds on some routes, the average collection quantity from each residential unit in Tampa is not unlike that reported in other Florida cities (Table 9).

The weight of the 50-gallon plastic container (11.6 lbs.) must be added in order to arrive at the average total weight borne by the collection laborer at each stop - just over 40 pounds. Management claims that average total weight of 65, and even 125, pounds are not uncommon for some routes (once plastic containers are no longer fit for use in collection, the Sanitation Department gives the containers to customers to use for trash).

Commercial routes currently contain 4000 stops. Management estimates that of the total mixed refuse collected, 30 percent (66,500 tons per year) is collected from commercial customers. Commercial solid waste tonnages exhibit no seasonality except for a slight increase at Christmas time due to the increased waste generation by retail shops.

TABLE 7: EFFICIENCY/PRODUCTIVITY DATA FOR TAMPA'S SOLID WASTE SYSTEM

	Parameter \ Collection Function	Mixed Refuse	Bulky	Commercial	Street Cleaning
Community Description	Population Served [1]	278,000			
	No. of Resid. or Comm. Units [2]	100,770			
	Street Miles	1,265			
	Alley Miles	0			
	Area (sq. mi.)	84			
	Pop. density (peo/sq.mi.)	3,309			
Waste Amounts	Annual Amounts Collected [3]	134,000 tons	20,000 tons	66,000 tons	---
	Lbs./unit/wk	51.1	7.63	---	---
	Lbs./person/day	2.64	.4	---	---
Collection System Description (inc. Level of Service)	Point of Collection	back yard (95%) alley (5%)	curb, vacant lots, wherever found	storage site, curb	streets, alleys, curbs
	Freq. of Collection	2/week	as requested	1-6/week	nightly
	Type of Storage Container	20 to 30 gal. can	---	hoist type containers, and cans	litter baskets in CBD
	Avg. Dist. to Disp. Site	5 miles			
	Avg. Miles Driven/truck/day	55	NA		
	Avg. Hours worked/day	8-9	8	8-9	8
	Direct men	300	49	40	12
	Crews	75	8-10	6 / 6	12
	Crew Size	4	5-6	2 / 3	1
	Trucks [4]	92	8-10	6 / 6	14
Wages	Avg. wages and fringe for laborers	$2.20/hour starting wage			
	Avg. wages and fringe for drivers	$2.61/hour starting wage			
Collection Cost/Efficiency Figs.	Stops/Crew/Day	672	---	60-360	---
	Tons/Crew/Day [5]	8.6	8.6	17.6	---
	Coll. Cost/resid. unit/yr.	$ 30.88	$ 5.04	$ 4.12	$ 1.24
	Coll. Cost/person/yr.	$ 11.19	$ 1.83	$ 1.49	$ .45
	Coll. Cost/ton/yr.	$ 23.22	$ 25.41	$ 6.29	$ ---
	Total Coll. Cost/yr. [6]	$ 3,111,955	$508,286	$414,927	$124,478
Disposal	Type & No. of Disp. Sites	1 incinerator and 2 landfills			
	Total Disp. Cost/yr.	778,874			
Total Cost	Total Cost/yr.	4,938,520			
Misc. Cost Ratios	Coll. Expense as % of tot. Exp.	84.2%			
	Coll. labor expense as % of tot. Coll.	80.7%			
	Coll. equip. expense as % of tot. Coll.	19.3%			
	Proc. & Disp. expense as % of tot. exp.	15.8%			
	Proc. & Disp. labor expense as % of tot. disp.	51.1%			

TABLE 7: Continued

1/ Census Data, 1970

2/ The number of dwelling units includes all types, some of which are vacant and others in multiple dwelling unit buildings.

3/ The annual collection data was not known with any accuracy during the site visit. These values were supplied by system management on 11 July 1973 and represent acceptable estimates.

4/ The equipment assignment for mixed refuse includes spare vehicles. The trucks for bulky collection are supported by two Rotoboom portable cranes. Commercial collections are performed in a day and a night shift. Night shift trucks are taken from the day shift fleet.

5/ Commercial collection was not disaggregated into wastes collected from normal and hoist type containers. The value of 17.6 tons/crew/day is the average for all commercial routes.

6/ Collection costs were allocated according to personnel assignments among the different activities. Administrative costs were allocated proportionally according to the ratio of the personnel in each activity to the total direct labor for all collection activities. Disposal personnel and costs were not included in this methodology.

The equation for this method is repeated below cost for collection activity X is equal to:

$$\left[\begin{array}{c}\text{personnel assigned to} \\ \text{activity X}\end{array}\right] \times \left[\frac{\text{administrative personnel}}{\text{Total collection direct personnel}} + 1\right] \times \left[\frac{\text{Total collection costs}}{\text{Administrative plus direct personnel}}\right]$$

TABLE 8

ESTIMATED WALKING DISTANCE PER DAY FOR COLLECTION LABORERS

Stops/Route/Day		656
Distance from curb to collection point		50 feet
Roundtrip distance		100 feet
Collection Labors/Crew		2
Walking distance for collection =	$\frac{656 \times 100}{2}$ =	32,800 feet
	≃	6.25 miles
Street miles/day (average)		8.5
Total walking distance for collection laborers		14.75 miles

TABLE 9

AVERAGE MIXED REFUSE COLLECTION QUANTITY FOR RESIDENTIAL UNITS IN TAMPA

Total residential units	100,770
Active accounts (less than total due to vacancy, multiple-dwellings, etc.)	~ 90,000
Yearly generation rate	134,000 tons
Approximate number of collection days per residential unit	104
Average collection quantity per dwelling (includes brush)	28.6 lbs.

5.2.2: Quality of Service

The quality of service provided to the residents of Tampa is exceptionally high. The streets are very clean and vagrant waste is virtually nonexistent. Even in the urban redevelopment area of the city, the grounds and vacant lots are clean.

The Department of Sanitation records complaint calls on daily worksheets in their operational procedures. After a complaint is received at the office, a call is made to the district foreman in whose district the complaint originated. It is his responsibility to check the legitimacy of the complaint. If the foreman finds the collection crew has failed to do their job, he arranges for the crew to return the same day. The radio equipped autos which the foremen drive have insure that all complaints are serviced the same day they are received. The Department of Sanitation does not summarize the daily complaint calls into monthly or annual statistics for analysis. Therefore, it was not possible to obtain any information on the number or types of complaints.

5.3: Turnover, Tenure, and Absenteeism

The Department of Sanitation now has an annual turnover rate of 106 percent. Unfortunately, there is no data available for individual labor classes, but most of these terminations are by unskilled workers. The basic reason for this high turnover rate is the carry-out service provided by the department. The work is too strenuous to maintain a stable work force. This is especially true during the summer months when the temperature is near the ninety degree range and the humidity is high.

The Sanitation Department conducted a study in 1969 to determine the effects of carry-out service on operating costs and employee turnover. This study, which is included as Appendix D, surveyed 51 other Florida cities concerning their operating procedures. The results of this study, plus additional research, reinforces the premise that turnover could be cut in half and operating costs reduced substantially if the City of Tampa switched to curbside service. Unfortuantely, the city officials are reluctant to change

the city ordinance to permit only curbside service. The Sanitation Department has now been struggling with this problem for over three years without any success.

A detailed listing of personnel by job classification and number of years on the job was not available for tenure information, however, it was possible to gain general information on this parameter. The top management staff of the department are lifetime professionals. The superintendent has 26 years of service, the assistant superintendent has 12 years of service, and the department coordinator has 25 years of service. The supervisory personnel and foremen have also been with the department for a considerable time. All fifteen of the collection foremen have ten or more years service and three out of five incinerator foremen have more than five years experience.

In the skilled and unskilled laborers group there are a surprising number of men who have been with the department at least five years. Approximately 67 percent of the 419 men are eligible for longevity pay which a worker receives only after five years of service. This means that roughly 150 positions are involved in the 106 percent annual turnover rate.

The excessive weight and walking distance have combined to produce very high absenteeism among the collection laborers. Management compensates by over-hiring. Collection laborers in Tampa move between the private and public sector - working for short periods of time with one private contractor, quitting, working for Tampa, quitting and returning to some other contractor in the private sector. In the past, the Sanitation Department met laborer shortages by recruiting prisoners from the city's stockade, but this practice is no longer used.

The City of Tampa collects quarterly injury data for each department within the city's organizational structure. Table 10 illustrates the type of data which is collected and the statistics which are included in this report. As is evident, the Department of Sanitation had the second highest number of injuries and had the highest frequency of accidents for the third quarter. Injuries within the Sanitation Department were also among the costliest.

TABLE 10
CITY OF TAMPA

QUARTERLY ACCIDENT REPORT - 3rd QUARTER, ENDING 9/30/72
LOST TIME & FIRST AID INJURIES - FREQUENCY & SEVERITY RATES

DEPARTMENT	No. of Employees	No. Man Hrs. Worked	No. Lost Time Injuries	No. First Aid Injuries	Total No. Injuries	No. Days Lost Time	Freq. This Qtr.	Freq. Last Qtr.	Severity	Dept. Rank	Cost
CENTRAL MAINTENANCE	110	55,552	2	9	11	* 180 +	35.7	89.3	3,240.2	4	$ 3,087
CONVENTION FACILITIES	38	19,152	0	0	0	0	0	50.0	0	1	0
FIRE DEPARTMENT	607	446,752	5	28	33	* 169 +	11.2	20.5	378.3	2	14,610
GARAGE DEPARTMENT	36	18,144	0	0	0	0	0	50.0	0	1	0
PARKS DEPARTMENT	198	99,792	8	13	21	* 136	80.0	50.0	1,362.8	8	2,763
POLICE DEPARTMENT	701	397,467	11	70	81	* 205 +	27.5	19.5	515.8	4	11,867
PUBLIC WORKS DEPT.	473	238,392	6	16	22	* 118	25.0	16.0	490.7	3	3,230
RECREATION DEPT.	282	142,128	0	9	9	0	0	6.1	0	1	663
SANITATION DEPT.	460	283,360	36	39	75	* 550 +	127.0	111.6	1,944.1	9	11,906
SANITARY SEWERS DEPT.	270	136,080	5	7	12	* 215 +	37.0	66.7	1,579.9	5	1,830
TRANSPORTATION (BUS)	96	48,384	0	0	0	0	0	81.6	0	1	883
UTILITY ACCOUNTING	75	37,800	0	3	3	0	0	26.3	0	1	0
WATER DEPARTMENT	178	89,712	7	6	13	* 173 +	77.7	73.7	1,928.4	6	5,081
ALL OTHERS	337	169,848	0	4	4	0	0	4.7	0	1	1,050
TOTALS	3,861	2,192,563	80	204	284	* 1,746 +	36.7	38.2	799.1		$56,890

* Indicates time charge carried over from previous quarter.
\+ Indicates continuing time charge.

Average frequency rate for this year 38.0
Average frequency rate for last year 38.1

Average cost per lost time injury $711.01

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A breakdown of these injuries by the portion of the body injured is presented in Figure 6. The most frequently injured portion of the body is the arms, followed by the trunk, and legs. According to the absolute number of injuries involving lost time, trunk injuries resulted in the most lost time.

The Department of Sanitation has run a safety program for the last three or four years. This program is primarily for the truck drivers. Before the drivers are allowed on the road, they must pass a truck "rodeo" driving test which tests their driving skill. Since the initiation of this program the number of truck accidents has been reduced substantially.

5.4: Inner City

The inner city of Tampa is defined by the Model Cities program which operates within the city. This area consists of approximately 1,890 acres with a population of 34,000 residents. It represents 3.5 percent of the city's total land area and 16 percent of the city's total population. The model cities program target area is characterized by the following socio-economic parameters:

- 45% of households at or below poverty level
- 50% of population in dependent age category
- 1 out of 5 households dependent on welfare
- 38% of residential structures substandard
- 34% of commercial structures substandard
- 17% of industrial structures substandard
- 16% of juvenile delinquency arrests occurred in Model Neighborhood Area
- Venereal disease 6x higher than in rest of County
- Communicable disease rate is double that of rest of community
- Average educational level is 7.4 years
- 33% must rely on poor transportation system
- 10% decrease in businesses
- No land use plan

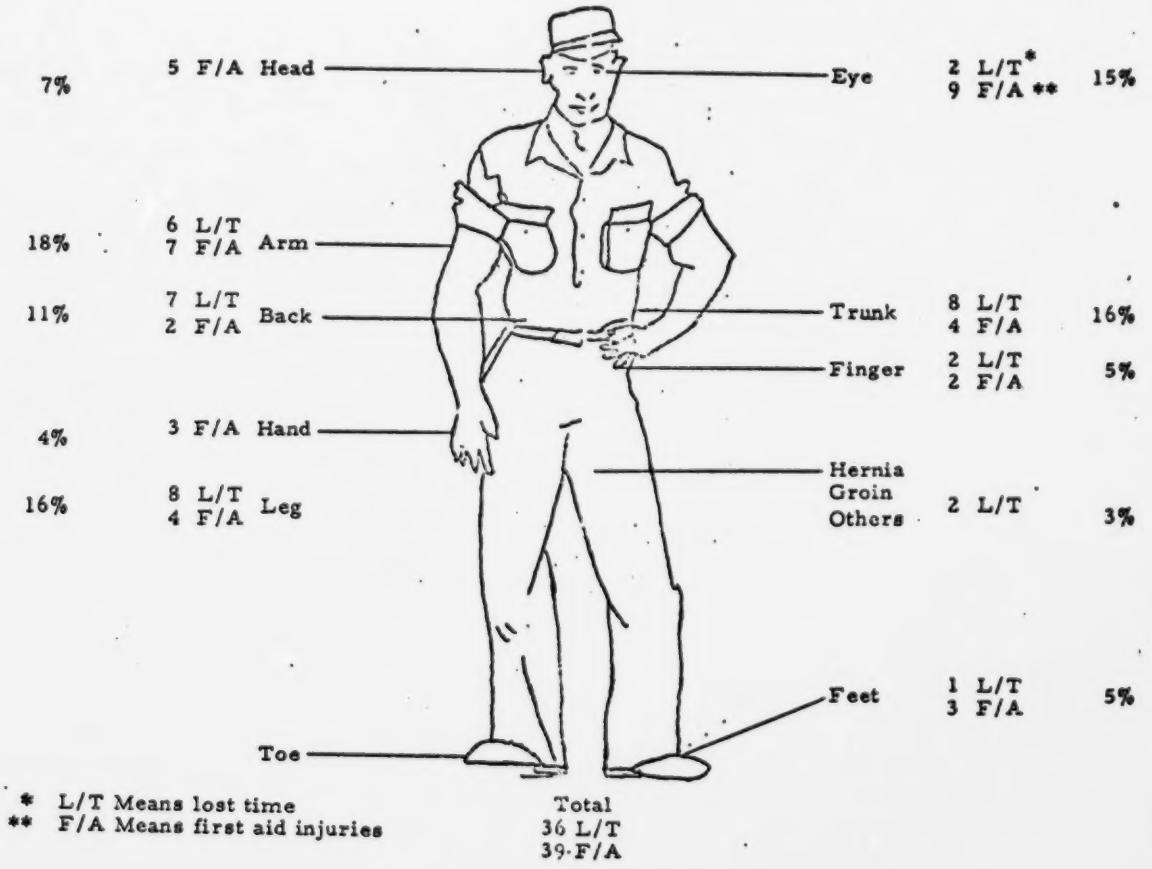

FIGURE 6: SANITATION DEPARTMENT THIRD QUARTER, 1972
PERCENTAGES FOR EACH PART OF BODY INJURED IN RELATION TO ALL INJURIES

The Department of Sanitation does not regularly provide additional or special services directly to this community. It has, however, participated in neighborhood cleanup operations which have greatly improved the physical appearance of the city. At the same time, there have not been a large number of complaints about the service in this area. The collectors appear to work as conscientiously in this area as in any other area of the city.

5.5: Disposal Methods

The Department of Sanitation currently operates three disposal sites in Tampa. Two of these locations are sanitary landfills used mainly for noncombustible trash. The city owns only one of these landfills and expects that this site will be filled by the end of February, 1973. The other landfill site is privately owned but is run by the city. It has a remaining lifetime of up to two years. In addition, a third landfill site has been obtained. This site will be used when the city-owned site is closed in February of 1973 and has an estimated one-year capacity.

The other disposal method is incineration. A new incinerator was opened in October, 1967 with a 750 ton per day capacity. Foundations are in place to expand this capacity to 1,000 tons per day, if necessary. A separate gas fired pathological incinerator capable of processing 150-250 tons per year is also run at the incinerator site. Private haulers may use all these disposal sites for a charge. The disposal user charge rates are given in Section 5.7.

Accurate figures on the total tonnage of waste disposed each day are not readily available. However, the incinerator is currently operating at approximately 90 percent of its 750 ton rated capacity. Thus, approximately 650-675 tons of waste are disposed of by incineration. The remaining waste, which amounts to only about 10 percent of the total, is disposed at the two landfill sites.

There are approximately 53 men employed in the Disposal Division with fifty of these men operating the incinerator. A current problem the Division faces is high employee turnover. The men who take jobs at the in-

cinerator do not stay on long enough to learn the necessary skills. The resultant need for continual training of personnel in order to run the site has increased costs and decreased the financial efficiency of the incinerator. There are three men in the Division who are employed at the landfills: they operate the landfill equipment and split their time between the two sites.

The heavy reliance on incineration as a disposal method has limited the amount of trash disposed at the landfill sites, and the total amount of disposal equipment operated by the division. At the incinerator, two overhead cranes are the major mechanical equipment. A few open trucks are also operated at this site for the removal of the residue. Three pieces of landfill equipment, two bulldozers and one dragline, are shared between the two landfill sites.

The Disposal Division initiated a recycling and salvage operation in January, 1972. The waste is delivered, on a voluntary basis, to shopping centers in the community. Table 11 presents the results of the operation for the initial eleven month period. The total costs of the recycling operation have slightly exceeded the total profits as the program is recovering only 87 percent of its operating costs. However, this operation could be considered very successful in view of the national cost recovery figure of about 50 percent. Even with such a successful operation and the capability of salvaging more material, the Department of Sanitation is not planning to enlarge the program due to the lack of a wholesale market for the salvaged material.

TABLE 11

SALVAGED METALS AND GLASS, AND PRICE PER POUND AS OF 11/29/72

Substance	Pounds Recovered	Price Per lb.
Aluminum	17,395 lb.	.10
Steel	139,937 lb.	.01
Hybrid	3,275 lb.	.01/2
White Glass	377,040 lb.	.01
Colored Glass	67,990 lb.	.01

The city incinerator is a relatively efficient disposal device and currently operates comfortably within the state's air pollution standards. However, the incinerator must be able to meet the 1975 air pollution standards or it will be closed. This presents a major problem to the department as these new standards are virtually impossible to meet, on a full time basis, given the existing plant and equipment. New air pollution control equipment is being sought but capital funds have not been allocated to purchase new devices. Air pollution requirements have also delayed the decision to increase the incinerator capacity to 1,000 tons per day. The added capacity is needed but the new air pollution standards and a lack of funds has prevented the addition to the existing plant. The incinerator is equipped with a magnetic separator and drum sieve arrangement for the recovery of ferrous materials from the incinerator residue.

A major problem facing the Department of Sanitation is future disposal sites. The current landfill sites are severely limited in capacity and future sites within the city limits are virtually nonexistent. The only recourse open to the department is to acquire sites in the county. The department is actively trying to purchase a 100-150 acre landfill in the county within twenty miles of the city. Upon site acquisition, the department will install a transfer station to more effectively service the site. However, the number of adequate landfill sites of this size is severely limited because the high water table may cause leacheate problems at most sites.

5.6: Equipment Description

The Department of Sanitation owns 145 pieces of equipment for their collection and disposal activities. A summary of this fleet, including the average lifetime operating cost of each type of equipment, is shown in Table 12. The department normally uses 75 collection vehicles for residential collection and 10 load packers for the commercial accounts. Based on these figures, there are 16 front and rear loaders which are kept as spare collection vehicles. This represents about 16 percent of the total packer collection vehicle fleet.

TABLE 12

AVERAGE LIFETIME OPERATING COSTS
FOR VARIOUS TYPES OF VEHICLES

# Vehicle	Description	Vehicle Repairs	Lube	Wash	Preventive Maintenance	Tires	Total[1/]
4	72 Inter. front loader	$2,106.97	$33.52	$31.06	$ 15.12	$ 83.22	$2,976.53
24	68 Ford leach 20yd tr.	7,095.91	125.88	32.41	1,001.18	807.30	9,617.57
5	71 Ford-16yd packer	1,587.72	100.72	179.50	138.48	353.95	2,999.12
72	71 Ford-20yd packer	1,697.20	130.86	166.67	179.45	318.69	3,150.14
1	65 6Mc transport	501.23	20.75	-	-	373.90	917.01
3	10yd dump trucks	4,763.01	44.51	-	458.09	1,129.95	7,406.58
2	69 Int. 10yd dump	3,182.92	58.16	8.37	385.74	917.90	5,953.20
1	70 GMC transport	1,069.64	83.28	13.50	170.83	223.17	1,884.13
1	71 Dodge 10yd tand	265.00	41.62	1.75	95.72	579.06	1,784.60
1	72 GMC 5500	278.95	-	10.50	-	6.00	355.69
1	65 Ford P/U	1,546.85	52.99	-	481.61	60.70	2,867.25
4	Dodge 3/4 ton P/U	1,480.10	34.21	14.44	489.34	51.06	2,727.21
8	21/2 ton truck	660.36	41.53	27.72	464.52	241.07	1,915.07
3	Ford w/14" tras	385.49	18.19	7.58	70.54	23.92	799.59
5	69 Wayne street sweeper	5,086.79	175.13	8.55	2,355.93	190.90	8,191.56
1	69 Ford w/crane-bucket	3,391.17	20.84	6.25	410.31	76.87	3,960.71
1	68 AC bulldozer EP 11	16,303.71	-	-	24.15	-	16,823.53
1	Trogan payloader	5,345.87	167.62	-	77.37	1,202.30	7,132.14
6	70 Elgin Sweeper	7,022.93	697.25	508.08	2,650.85	552.90	11,321.32

[1/] Totals are larger than sum of components, as all expenses were not recorded on city data sheets.

5.6.1: Financing and Cost

The motor vehicles operated by the Department of Sanitation are rented from the Central Maintenance Department. A description of the monthly charges for the vehicles listed in Table 12 is shown in Table 13. Prior to the 1971-72 fiscal year, the Sanitation Department paid its own depreciation expense. Now, this expense is paid through a central government fund so that the actual rental cost to the Sanitation Department covers only the cost of operation. An attempt was made to compare the actual cost for each piece of equipment, as shown in Table 12, to the rental charge. Unfortunately, some expense items were not accurately reported, making it difficult to compare actual expenses with rental charges.

5.6.2: Maintenance Policy

The preventive maintenance procedures for the vehicles are performed at the central storage garage. The first line maintenance is the responsibility of the operator. This includes checking the gas, oil, air, and water in the vehicle each night. The sweeper operators perform more rigourous maintenance of their vehicles. In addition to regular preventative maintenance, they are responsible for greasing and minor mechanical adjustments of the vehicle and are trained by the maintenance department for these skills. Each collection vehicle is serviced by the Central Maintenance Department every 35 to 45 days. This scheduled service is an inspection of all critical mechanical functions of the vehicle. A piece of equipment is out of service for one day during this inspection unless major repairs are required.

New equipment is thoroughly inspected before it is placed into service. This extensive examination provides for a thorough check of the engine and body, and determines if the operating instructions are clear and precise.

5.6.3: Equipment Replacement Policies

The Department of Sanitation works closely with the Central Maintenance Department when replacing the existing rolling stock or expanding the fleet. The expected lifetime of the collection vehicles is approximately five years, and any decision to replace the existing rolling stock is made by the Central Maintenance Department.

TABLE 13

AVERAGE MONTHLY RENTAL RATES FOR VARIOUS TYPES OF EQUIPMENT [1]

# Vehicle	Description	Date Acquired	Cost	Dep. Per.	Dep. Rate	Operation Cost	Total Cost	Book Value [2]
4	72 Inter. front loader	2/72	21,599	60	359	201	560	18,986
24	68 Ford Leach 20yd tr.	10/69	12,067	60	203	411	614	4,269
5	71 Ford-16yd packer	10/70	16,043	60	267	241	509	9,625
72	71 Ford-20yd packer	10/70	16,143	60	269	241	510	9,648
1	65 6Mc transport	10/69	4,300	36	119	66	185	0.00
3	10yd dump trucks	10/69	3,155	24	117	210	311	.01
2	69 Int. 10yd dump	10/69	9,262	96	96	209	305	5,788
1	70 GMC transport	6/70	11,606	60	193	209	403	6,189
1	71 Dodge 10yd sand	7/71	11,507	60	191	-	-	8,631
1	72 GMC 5500	4/72	7,070	60	117	209	326	6,363
1	65 Ford P/U	11/68	1,200	24	50	62	112	0.00
4	Dodge 3/4 ton P/U	10/70	2,322	54	43	70	113	1,203
8	21/2 ton truck	6/70	5,577	60	93	98	191	2,731
3	Ford w/14" tras	7/71	7,098	60	118	98	216	5,324
5	69 Wayne street sweeper	10/69	14,455	72	201	135	336	7,249
1	69 Ford w/crane-bucket	10/69	10,085	60	168	238	406	4,034
1	68 AC bulldozer EP 11	10/69	31,811	120	265	466	731	22,767
1	Trogan payloader	10/69	19,985	120	166	596	762	13,989
6	70 Elgin Sweeper	10/70	17,042	60	284	238	522	10,225

[1] These figures are averages for each piece of equipment

[2] As of October 1, 1972

The purchase of new vehicles is made by the Central Maintenance Department. Working with the Sanitation Department they write the equipment specifications and request bids. At least three sealed bids are required with the contract generally going to the lowest bidder.

Any vehicle purchased in 1965 or earlier is not repaired if there is a major mechanical failure. Vehicles purchased after 1965 are reevaluated if the cost of repair is over one hundred dollars. If the cost of repair exceeds the estimated salvage value of the vehicle, it is disposed by auction through sealed bids. The Department of Sanitation confers with the Central Maintenance Department to determine when a vehicle should be scrapped.

5.7: Financial Aspects of the Tampa Solid Waste System

The Municipal Solid Waste System of Tampa, Florida currently relies on the General Fund as a revenue source for their operating budget. The Sanitation Department charges a user fee for collection and disposal activities and this revenue is contributed to the General Fund. However, this money is not directly earmarked for the Department of Sanitation, as all disbursements are made from the General Fund without recognition of the source of income. In addition, the department finances capital expenditures through the utility tax fund. This is a ten percent tax charged to consumers on all utilities which, according to state law, may only be used for captial acquisition and debt service.

The State of Florida enacted legislation on January 1, 1973 which established a ten mill municipal tax rate ceiling per $100 of assessed valuation. Prior to this date, the City of Tampa was collecting property taxes at a rate of thirteen mills. The reduction in property tax income has caused a temporary perturbation to the city's finances as it adjusts to the lower tax rate. Additional income is being obtained through the utility tax and revenue sharing, but a plan for allocating this income to the various departments has not yet been clearly established.

The budgetary process for the Department of Sanitation begins with the Assistant Superintendent. He develops the capital and operating budgets, although each budget is treated as a separate entity and requires separate

approval. These budgets are sent to the Department Superintendent for approval, before being submitted to the Comptroller. The Mayor reviews these budgets along with the Comptroller and a meeting is held between the department head and the Review Committee (Comptroller and Mayor). They establish mutually agreeable operating and capital budgets. Finally, the Sanitation Department's budget is incorporated into the city budget and presented by the Mayor to the City Council for approval.

In order to clearly present the financial aspects of the Department of Sanitation, this section is divided into two parts. The initial section will describe the revenue sources available to the department. Secondly, information will be presented on the level and type of expenditures made by the department.

5.7.1: Sources of Revenue

The General Fund serves as the basic revenue source for the operating budget of the Department of Sanitation. Sixty-two taxes, fees, and licenses serve as revenue sources for this fund. The collection and disposal user charge will contribute approximately $4,139,000 in the fiscal year of October 1, 1972 to September 30, 1973. This represents 17.7 percent of the total General Fund receipts. The department's Capital Budget has relied on bank loans and the utility tax as a source of revenue.

General Fund

The composition of funds flowing into the General Fund shifted radically between the fiscal years 1972 and 1973. The initiation of the state-imposed property tax rate ceiling dropped property tax revenue entering the General Fund from $6,673,178 in FY 1972 to $2,726,463 in FY 1973. The General Fund proportion of the 13.19 mills total tax rate was 5.6211 mills in FY 1972. This figure decreased to 2.1598 mills when the tax rate ceiling was dropped to 10.0 mills. To offset the decrement in local property tax funds, the city allocated $7,035,350 of the state revenue sharing funds to the General Fund. There has not been a significant shift in the amount of sanitation user charge funds flowing into the General Fund.

The Department of Sanitation first initiated a user charge in 1960. Table 14 illustrates the initial rates and the subsequent rate changes established for both the residential and commercial customers. In addition to these charges, a special rate of $20 per truck per day is charged for special

TABLE 14

USER CHARGE RATES FOR COLLECTION SERVICES, 1960-1972

Type of Service \ year	1960	1966	1968	1971
Residential [1]	$1.50	$2.50	$3.00	—
Commercial [2]	.65	—	.90	$1.25

[1] Charge per dwelling unit per month

[2] Charge per cubic yard

services provided to either residential or commercial customers. This includes special collections of construction debris or large amounts of vacant lot waste.

User charges are also imposed on private haulers who dispose of their waste at the city incinerator or at the city landfills. A flat rate of $6.00 per ton is charged at the incinerator with a minimum charge of $.85. The rate structure at the landfills varies by the type of truck. These rates are shown in Table 15.

TABLE 15

LANDFILL DISPOSAL RATE CHANGES

Rate	Type of Vehicle
$1.00	Pickup Truck or Panel Truck
3.00	Trucks (loose) with four foot sides or less
7.00	Trucks (loose) with four foot sides or greater
17.50	Semi-trailers (loose)
15.00	Packer body trucks

Tampa City Ordinance No. 5297-A; March 13,1972

Although the user charges are placed into the General Fund for disbursement, an attempt was made to determine if these charges would cover the Sanitation Departments operating expenses. The department's FY 1972 receipts and expenditures indicate that the department (both collection and disposal) would have had an operating deficit of $811,795 if it had relied solely on user charges. This figure does not include either capital expenditures or capital depreciation expenses.

Bank Loans

The Department of Sanitation has obtained bank loans twice in recent years. In 1965, the City of Tampa borrowed approximately one million dollars to finance an entire new fleet of collection vehicles. As soon as this debt was paid, the city was again forced to borrow funds in 1970 to finance new equipment. This latest loan is a 5 year, two million dollar loan issued at six percent simple interest.

The city and the department are trying to eliminate bank financing, as it is very expensive. While the latest loan is being paid, the city is attempting to build a sinking fund for future purchases. This fund is not maintained by the Department of Sanitation, but rather by the city. When new equipment

is needed, the department head will go through intragovernmental channels to acquire the necessary funds.

Bonds

The only recent bond issue financed the new incinerator built in 1965. The value of the general obligation bond was approximately 5.1 million dollars with a thirty year maturity. A bond issue was chosen as the method of financing for it is the cheapest method of financing large capital expenditures. In addition, the bond issue need only be approved by the City Council, and not through a referendum.

Utility Tax Fund

The ten percent utility tax on all utility services in the City of Tampa can only be used to finance capital expenditures or to liquidate debt. This fund is currently being used to liquidate the latest bank loan and the bond issue. In addition, depreciation on the current rolling stock is paid through this fund.

5.7.2: Expenditures

The expenditures of the Department of Sanitation are monitored through two regular monthly accounting statements. One statement breaks the expenses down into major expenditure categories by the type of account - either commercial or residential. The second monthly statement gives more detailed expenditure data but this information is not broken down by the type of account. There is also an annual accounting statement which presents all expenditures by major expense categories.

Table 16 shows the detail of the major expense items for the collection and disposal functions. Total collection expenditures for the fiscal year 1971-72 are approximately $130,000 less than in the previous year. This figure reflects two changes in the department's expenditure accounts. Beginning in the FY 1972, the department was no longer charged directly for depreciation of the collection equipment. This change can be seen in the contractual services account where the expense for vehicle rental dropped from $817,335 to $442,840. As previously stated, the depreciation expense is now paid from the utility tax fund.

TABLE 16

OPERATING EXPENDITURES FOR COLLECTION AND DISPOSAL FUNCTIONS, 1969-73

Year Functions	Wages & Salaries	Other Personnel Costs [1]	Contractual Services	Materials & Supplies	Overhead	Additional Equipment	Buildings & Furniture	Special Services	Total
1972-73 [2]									
Coll.	2,806,023	530,162	504,900	32,500	17,168	15,500	2,500	155,828	4,064,581
Disp.	349,787	99,507	13,900	8,400	106,294	179,000	6,000	--	762,888
1971-72 [3]									
Coll.	2,814,192	543,033	442,840	23,790	6,781	16,910	2,500	309,600	4,159,646
Disp.	296,502	101,766	13,172	6,371	99,944	232,970	28,149	-	778,874
1970-71									
Coll.	2,659,548	558,915	817,335	23,187	9,505	14,805	16,021	185,706	4,285,022
Disp.	295,696	105,575	7,998	6,051	96,247	260,639	23,898	-	794,104
1969-70									
Coll.	2,398,173	549,882	995,222	23,483	8,771	36,659	16,717	186,855	4,215,762
Disp.	264,093	81,147	8,314	5,798	85,971	157,755	19,226	-	622,304

[1] These figures are estimated to be 15 percent of the direct operating expense. It includes some allowance for additional overhead.

[2] Budgeted figures for the 1972-73 fiscal year.

[3] These figures are estimated; the figures for the other two years are actual.

SOURCE: City of Tampa budget; fiscal year 1972-73.

The second shift in expenditures occurred in the special services account. There are two basic accounts which form this aggregated figure; the park account and the utility billing account. The park account reflects expenditures for mowing and cutting grass in the city's parks. This service was transferred directly to another department for the 1973 fiscal year. The utility billing expenditure is the city's charge for mailing bills and collecting user charges. This figure basically reflects the change in the special services account between the two years, as these charges jumped from $13,800 to $113,800. The magnitude of this figure reflects the switch to the Utility Department's Accounting Data System.

The total wage bill for collection is approximately 80 percent of the total operating budget. This figure is somewhat higher than comparable figures in other cities, and undoubtedly reflects the overhead included in other personnel costs. If these costs could accurately be determined rather than estimated at 15 percent of total operating expenses, the total wage bill would probably be more in line with the national average.

APPENDICES

APPENDIX A

ORDINANCE NO. 4907 -A

AN ORDINANCE AMENDING CHAPTER 18 OF THE CITY OF TAMPA CODE BY AMENDING SECTIONS 18-62 AND 18-63 PROVIDING THAT GARBAGE MAY BE KEPT IN CONTAINERS, OTHER THAN GALVANIZED IRON, THAT ARE APPROVED BY THE SANITATION DEPARTMENT OF THE CITY OF TAMPA AND BY SUBSTITUTING THE TERM "CONTAINERS" FOR THE TERM "CANS" WHERE THE TERM APPEARS THEREIN; REPEALING SECTION 18-64; AMENDING SECTION 18-65 BY SUBSTITUTING THE TERM "CONTAINERS" FOR THE TERM "CANS" WHERE THE TERM APPEARS THEREIN; AMENDING SECTION 18-66 PROVIDING THAT TRASH OR WASTE MATERIAL, WHICH CANNOT BE PLACED IN CONTAINERS, SHALL BE PLACED ADJACENT TO THE STREET; PROVIDING THAT LOGS OR TREE LIMBS MUST BE CUT IN 4-FOOT LENGTHS OR LESS; AND PROVIDING THAT RUBBISH OR WASTE MATERIAL CAUSED BY CONSTRUCTION WILL NOT BE REMOVED BY THE CITY; REPEALING SECTIONS 18-67 AND 18-67.1; AMENDING SECTION 18-75 PROVIDING THAT TRASH OR WASTE MATERIAL WHICH CANNOT BE PLACED IN CONTAINERS SHALL BE PLACED ADJACENT TO THE STREET; AMENDING SECTION 18-75.3 BY DELETING SUB-PARAGRAPH B THEREOF AND RE-LETTERING THE SUB-PARAGRAPHS CONTAINED THEREIN; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH AND PROVIDING FOR AN EFFECTIVE DATE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF TAMPA, FLORIDA:

Section 1. That Section 18-62 of the City of Tampa Code be and the same is hereby amended to read as follows:

"Sec. 18-62. Garbage to be kept separately; sanitary department to provide for removal.

All garbage shall be kept in galvanized iron containers with proper fitting galvanized iron covers, which covers and containers shall be water tight and placed over such containers at all times. Other type containers and covers may be used upon approval by Sanitation Department of the City of Tampa. The garbage so deposited in such containers, as herein provided, shall be removed under the direction of the Sanitation Department in water tight receptacles, under such rules and regulations as the department may from time to time establish. The Sanitation Department shall make such provisions for the removal, disposition or disposal of such garbage as shall be as inoffensive to the people of the City and as little prejudicial to the public health as possible."

Section 2. That Section 18-63 of the City of Tampa Code be and the same is hereby amended to read as follows:

"Sec. 18-63. Garbage containers required; cleanliness.

The occupant of every house, apartment or tenement or proprietor of every public eating establishment shall provide galvanized iron containers with proper, well fitting galvanized iron covers, adequate to contain the garbage accumulating in such establishment, and shall place all such garbage therein. Other type containers and covers may be used upon approval by Sanitation Department of the City of Tampa. The owner of each garbage container will be held responsible for the cleanliness and sanitary condition of the same."

Section 3. That Section 18-64 of the City of Tampa Code be and the same is hereby repealed.

Section 4. That Section 18-65 of the City of Tampa Code be and the same is hereby amended to read as follows:

"Sec. 18-65. Containers to be placed for convenient collection.

All garbage containers, rubbish and waste receptacles, shall be kept in a place convenient and accessible for removal by the city collectors. Such convenient location shall be approximately at the street level, but not upon or in any public street or sidewalk.

Garbage and rubbish containers will be removed from and returned to the designated place at all dwelling houses, tenements, etc., especially in those districts of the City where some irregularity in time of collection is inevitable, and at locations where the placing of containers at the street side in anticipation of arrival of the collectors would result in public inconvenience."

Section 5. That Section 18-66 of the City of Tampa Code be and the same is hereby amended to read as follows:

"Sec. 18-66. Rubbish and trash to be placed in containers; depositing on street prohibited.

All rubbish, refuse matter, household waste, trash and wastage of manufacture or handling of merchandise, shall be placed by the occupant of any property or owner of unoccupied land or lots, in well made containers or receptacles with covers both for cleanliness and sanitation to facilitate removal of the same. No person shall deposit or leave any rubbish, leaves, tree trimmings or other dry refuse on the streets or sidewalks in the City.

Any trash or waste material which by reason of its bulk or shape cannot be placed within a container, will be placed out adjacent to, but not in, the street. Logs or tree limbs must be cut in 4-foot lengths or less. Such trash or waste will be disposed of as promptly as the Department of Sanitation can handle it.

Rubbish and waste material caused by construction or repairs of building will not be removed by the City, unless it is necessary for the Health and Welfare of the Citizens of the City to do so to remove a hazard."

Section 6. That Sections 18-67 and 18-67.1 of the City of Tampa Code be and the same are hereby repealed.

Section 7. That Section 18-75 of the City of Tampa Code be and the same is hereby amended to read as follows:

"Sec. 18-75. Placing or permitting offensive matter on streets, vacant lots, in streams, etc.

No owner, or agent of any premises or lot, vacant or unimproved, or tenant or occupant of any premises, if occupied, or any other person shall cause or permit thereon the accumulation of, or place upon any street or sidewalk or in any building, outhouse, yard or enclosure or into any pond, stream, ditch, or body of water, any dung, filth, stable bedding, offal, decaying vegetables, meat or fish, animal matter, dead animal, loose or waste paper, dirty water, brine or rubbish of any kind which is, or may become unwholesome or offensive to any person.

No person shall throw, scatter or leave any loose paper, trash, rubbish, tree clippings, or any other dry refuse or waste matter of any kind or character on the streets or sidewalks of the city. No merchant, storekeeper or other person shall sweep onto the sidewalk, pavement or any of the streets of the city the sweepings or trash from such store or premises. All loose paper, trash, or other dry refuse matter shall be placed in a box or other receptacle with a cover to prevent scattering of the same by the wind, which receptacle shall be placed conveniently accessible to the sanitation department.

Any trash or waste material which by reason of its bulk or shape cannot be placed within a container, will be placed out adjacent to, but not in, the street. Such trash or waste will be disposed of as promptly as the Department of Sanitation can handle it.

It shall be unlawful for any person to throw or deposit any kind of refuse matter, liquid or solid, fermentable, nonfermentable, dead animal, fish or fowl, into or upon any public square, street, unoccupied lot or into any waters of the City."

Section 8. That Section 18-75.3 of the City of Tampa Code be and the same is hereby amended by deleting therefrom sub-paragraph b and relettering the sub-paragraphs contained therein as follows:

"Sec. 18-75.3 Prohibited acts.

It shall be unlawful for any person to do any of the following:

a. To place or cause to be placed any garbage or trash upon the property of another;

b. To convey or cause to be conveyed over and upon any of the streets and alleys of the city any garbage or trash without a permit or license, or both such permit and license, as required by the regulations affecting the collection and disposal of garbage and trash;

c. To deposit or dispose of any garbage or trash in any public street, alleyway, stream, ditch, river, pond, bay, creek, park or public place in the city except at such incinerators or dumps as shall be designated by the superintendent;

d. To deposit, dump, or dispose of any garbage or trash at, upon, or in any incinerator or dump as shall be designated by the superintendent without first obtaining the permission of the custodian thereof;

e. To burn or bury any garbage within the city except at such incinerators or dumps as shall be designated by the superintendent, or to burn any trash within the city, except at such incinerator or dump without first obtaining a permit from the fire marshall of the city;

f. To produce or accumulate any trash, refuse, building wastes, or tree trunks and branches away from such person's premises while such person is acting in the capacity of a contractor, such as a tree surgeon, landscaper, or mechanical or building contractor, without removing the same to a designated dump or incinerator;

g. To do any act prohibited or to fail to do any act required by the regulations affecting the collection and disposal or garbage and trash within the city. "

Section 9. All ordinances, or parts of ordinances, in conflict herewith be and the same are hereby repealed.

Section 10. This ordinance shall be published and posted as provided by law within five (5) days after it shall become law, and shall take effect immediately upon its publication.

PASSED AND ORDAINED by the City Council of the City of Tampa, Florida, on JUN 9 1970.

R. L. Chesney
CHAIRMAN OF THE CITY COUNCIL

ATTEST:

W. L. Stark
CITY CLERK

APPROVED by me on June 15, 1970

Sid A. Graham
MAYOR

APPENDIX B

CITY OF [illegible], FLORIDA

DEPARTMENT OF SANITATION

Phone 877-6031

RULES AND REGULATIONS

GARBAGE RULES

1. DRAIN AND WRAP ALL GARBAGE.
2. KEEP CAN OFF DIRT SO IT WILL NOT RUST.
3. REPLACE WORN OUT CANS OR THOSE WITH HOLES.
4. USE THE STANDARD 20 GALLON GARBAGE CANS.
5. YOUR CAN SHOULD BE WATER TIGHT WITH LID THAT FITS.
6. USE ONLY GALVANIZED OR PLASTIC CANS FOR GARBAGE.
7. DO NOT PLACE DIRT, BRICKS, PLASTER, BUILDING MATERIALS OR RAGGINGS IN THE GARBAGE CAN.
8. KEEP COVERS ON CANS AT ALL TIMES.

TRASH REGULATIONS

1. PLACE OUT ADJACENT TO STREET SUCH TRASH AS, RUBBISH, TREE OR SHRUBBERY CLIPPINGS, LEAVES, MAGAZINES AND QUANTITIES OF NEWSPAPERS. ALL LOOSE MATERIALS AND TRASH MUST BE PLACED IN A CARTON, PLASTIC BAG OR ANY TYPE CONTAINERS SO IT WILL NOT BLOW AROUND.

2. BUILDING MATERIALS, TREE TRUNKS AND LUMBER WILL NOT BE MOVED BY THE CITY.

3. TREE TRIMMINGS AND LIMBS MUST BE CUT TO 4' OR LESS.

4. WHEN A PERSON BY CONTRACT, CUTS DOWN TREES FOR YOU, HE MUST HAUL IT AWAY.

5. TRASH IN A CONTAINER, PLACED OUT BY THE CURB WILL BE REMOVED TWICE WEEKLY.

6. HUGE QUANTITIES OF TRASH, NOT PRACTICAL TO PLACE IN CONTAINERS, WILL BE REMOVED AS OFTEN AS POSSIBLE.

7. ALWAYS PLACE LOOSE LEAVES IN A CONTAINER.

8. NEVER PUT ANY TRASH IN THE STREET. PLACE IT OUT ADJACENT TO STREET.

THESE ITEMS ARE FURNISHED FOR YOUR INFORMATION AND UNDERSTANDING. WITH YOUR FULL COOPERATION, WE WILL BE ABLE TO RENDER THE FINEST SERVICE ON THE BEST POSSIBLE SCHEDULE AND HAVE A CLEANER CITY.

APPENDIX C

CITY OF TAMPA, FLORIDA

DEPARTMENT OF SANITATION

The rubbish you have put out to be picked up by the Sanitation Department, is in violation of the City Ordinance Section 18-66, due to the following:

☐ TRASH IS IN THE STREET.

☐ LOOSE TRASH NOT IN CONTAINERS.

☐ THE DEPARTMENT DOES NOT MOVE BUILDING MATERIALS.

☐ LOGS OR LIMBS MUST BE CUT IN 4' LENGTHS OR LESS.

This Ordinance says loose trash must be placed in containers to be picked up, except that which by reason of its bulk or shape cannot be such as old furniture, appliances, etc.

Your rubbish ☐ has been ☐ will be moved this time. ☐ Your rubbish will not be moved until the violation is corrected. Please correct the violation for future pick-up.

You are reminded that under City Ordinance Section 18-75.3 (g) any building contractor, landscaping contractor, is responsible under the Law to remove the debris from his work, to the City Incinerator or approved landfill.

All cardboard boxes and bags will be taken with the trash. Other type containers will be emptied and returned to your yard. Your cooperation in this regard will be appreciated.

Date: _____

E. JACK CLARK
Superintendent

Phone No. 877-6031

THANKS FOR YOUR HELP

APPENDIX D

CITY OF TAMPA SANITATION DEPARTMENT

REFUSE COLLECTION STUDY

1 9 6 9

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1. Reason for study.

2. Why the customers will want to keep rear door service.

   a. Answers to above.

3. Why we need curbside service.

4. Financial statement.

5. Safety factor.

6. Conclusions.

7. State wide Refuse Study.

8. Enclosures:

   a. Bodily injury breakdown.

   b. Refuse study throughout the State of Florida.

1. REASON FOR STUDY:

Due to the ever changing labor situation in the country today, it is getting harder and harder to get men to carry garbage, (tub catch or rear door), due to the very strenuous nature of the work,particularly in our hot summer months. Men in the refuse collection work using rear door service, are walking an average of 15 to 19 miles per day carrying an average load of 75 lbs. on their shoulder, in 80 to 100° weather. It is getting practically impossible to get men for this.

Many things contribute to this problem. The employment in the nation is at an all time high. If you dismiss a man today, he can go to work somewhere else tomorrow at another job, doing far easier work than carrying garbage, and chances are for more money. Another reason is education. A person with a better education is going to try any type of work before he carries garbage.

The per capita refuse has increased also in the last ten years from 3.1 lbs. per peron to 5.2. Where ten years ago a family would have one garbage can, now they have 4 and 5 cans to carry out, plus the trash loads. Our economy is higher, so people have more money to put in their yards and shrubs, resulting in more trash.

THE ONE AND ONLY ANSWER TO THIS PROBLEM IS CURBSIDE PICK UP, CONTROL AND LIMIT ON THE TRASH, not because of the economics, but because it will be the only way to get laborers to do this type work. By going to curbside service, it will open a new labor field. The average man when he reaches 40 years old, starts down hill. On rear door service, they just are not physically able to keep it up, where on curbside they can go to 55 and beyond, if they are in fair health.

The following study is to show the whole story on curbside pick up versus rear door, the pros and cons of both, the economics and conclusions in regards to our city, and a summarized study prepared from Refuse Collection Questionnaires sent to the 71 cities listed in the A.P.W.A. Register for the State of Florida.

2. WHY THE CUSTOMER WILL WANT TO KEEP REAR DOOR PICK UP:

a. They are paying high enough for collection, so they should be able to have it picked up from the rear door.

b. They do not want unsightly garbage cans in their front yards.

c. People will leave their garbage cans out all the time, making our City look unsightly.

d. "We are too old, physically handicapped" .... an old lady by herself, or an old man by himself and cannot carry the garbage out.

e. The men will scatter garbage in my front yard.

f. The animals will tip the garbage cans over in my front yard.

g. The garbage is too heavy to carry out.

All of these complaints on the surface seem legitimate, and to the customer are very real. But let us take another look at it:

a. The trend for rear door refuse collection service is to go higher all over. For instance, right here in our own County, $4.50 to $5.25 for rear door service; $3.75 for curbside service, which is $.75 higher than we charge for rear door.

b. The Ordinance should be changed so that by certain time all cans on collection day would be taken off the fronts, and returned only on collection day for pick up.

c. The change in the Ordinance would take care of this.

d. One can at a time is not that heavy, plus today there is all types of carts for moving garbage cans, which looks neat, and makes it easy to move your cans.

e. With the cans in front you have immediate control on this, because you can see what the men do, where behind the house if they scattered the garbage, our Supervision was not as aware of it until someone called in.

f. The change in the Ordinance would take care of this.

g. One can at a time is not that heavy, plus today there is all types of carts for moving garbage cans, which looks neat, and makes it easy to move your cans.

3. WHY WE NEED CURBSIDE SERVICE:

a. Safety factor:

We have very many injuries caused by rear door service, costing the City thousands of dollar, which we will go into further in this report. Back injuries, stepping in holes, stepping on tools, toys, sprinklers, nails, etc. left out. Gravel rash caused by drum on shoulder, dog bites. This can go on and on.

b. No scattering of garbage because the cans are out front, where supervision can see what is going on.

c. No garbage misses, because the cans are where they cannot be missed.

d. Better garbage and trash service because they are placed out together.

e. No more broken down fences.

f. No more tearing of shrubbery, flowers, gardens, garbage cans, etc.

g. No more calls of men looking in the windows.

h. Very important, a whole new labor field.

i. Proper can replacement for neater operation. (the cans are out, where they can be seen).

j. No more of having the neighbor's garbage in your yard. (dropping off the catch drum).

k. No more of the lids being left off.

l. One hundred per cent better supervision. All the refuse is set out, where Foreman and Supervisor are positive what is going on.

4. FINANCIAL STATEMENT - ECONOMICS: (Up dated March 27, 1972)

It is a general rule of the thumb in the refuse business, that changing from rear door service to curbside, you should save 30 to 33% in your overall operational costs.

The following is a breakdown of our savings, considering the facts. Until further adjustment, these figures are on the conservative side. Instead of running 75 routes with 4 men to the truck, we would be running 52 routes with 3 men to the truck.

1972-1973 BUDGET

SALARY: Cut back 123 men:

23 Drivers	@ $6,090.24	$140,075.52	
23 Asst.Drivers	" 5,266.40	121,127.20	
75 Collectors	" 5,166.72	387,504.00	
2 Foremen	" 8,136.96	16,273.92	
			$664,980.64
Uniforms- @ $46.84 per set(123 sets)			5,761.32
Tools and equipment less, barrels, pitchforks, brooms, shovels, etc.			6,500.00
To be saved on vehicle operation, maintenance and repairs (Acct.1440)			110,500.00
T o t a l.-			$787,741.96
Fringe benefits, including longevity, pension contribution, insurance, etc.			134,885.33
To be saved in Medical, Compensation pay and First Aid expenses (*)			22,653.06
TOTAL TO BE SAVED			$945,280.35

(*) Total Medical Expenses breakdown on Item 5, Safety Factor.

4. FINANCIAL STATEMENT - ECONOMICS:

It is a general rule of the thumb in the refuse business, that changing from rear door service to curbside, you should save 30 to 33% in your overall operational costs.

The following is a breakdown of our savings, considering the facts. Until further adjustment, these figures are on the conservative side. Instead of running 76 routes with 4 men to the truck, we would be running 51 routes with 3 men to the truck.

1969 - 1970 BUDGET

SALARY: Cut back 155 men:

25 Drivers	@ $5,715.84 ---------$	142,896.00	
126 Laborers	@ $4,992.00 ---------	628,992.00	
3 Foremen	@ $7,762.50 ---------	23,287.68	
1 Supervisor	@ $8,136.96 ---------	8,136.96	
			$ 803,312.64
Uniforms - @ $46.84 per set (155 sets)			7,260.20
Tools and equipment less, barrels, pitchforks, brooms, shovels, etc.------			10,000.00
To be saved on vehicle operation, maintenance and repairs.----------			117,846.00
T o t a l			$ 938,418.84

Plus:

Longevity @ $400.00 ----$ 62,000.00		
Fringe benefits -20% --- 160,662.52		222,662.52
To be saved in Medical, Compensation pay & first aid expenses (*)----------		22,653.06
TOTAL TO BE SAVED------		$1,183,734.42

(*) Total Medical expenses breakdown on Item 5, Safety Factor.

5. SAFETY FACTOR DIRECTLY RELATED TO REAR DOOR SERVICE:

Taking the calendar year 1968, the Safety Dept. made a total breakdown of all body injuries in the Sanitation Department. We then separated those directly related to rear door service and the cost for same. Ther were a total of 315 body injuries, of which 234 we re directly related to rear door service for a cost of:

Total Medical ----------	$ 15,739.73
Total Compensation --------	6,188.33
Total First Aid ----------	625.00
Total	$ 22,653.06 (*)

6. CONCLUSIONS:

This part of the report is Phase I, showing the possibilities and need for curbside service. In the financial portion, in order to be conclusive, we would need to do some field study in order to be more accurate in cost factors; this would be Phase II, if you elected to go ahead.

This would consist of taking 4 or 5 areas in the City, print literature explaining what we are doing and deliver it door to door in these areas, and try the curbside pick up in order to be sure how many units a three-man crew can handle.

With curbside service in a brief this would be accomplished:

a. Render the type service needed to keep the city clean.
b. Give the public the kind of service they need, desire and expect.
c. Save the City a tremendous amount of money in the Sanitation Dept. Money needed for proper equipment, equipment replacement, adequate and fair salaries etc. (With present income, this is not possible).
d. Solve the labor problems facing this Dept.; a problem that is State wide as seen by the Questionnaire study made.

With these facts in hand after Phase II, the following should be given consideration:

a. The City Code Article III should be given close scrutiny, Section 18-61 through 18-75, with curbside service in mind.
b. The limits on trash should be spelled out, when the cans for collection should be set out and when they should be returned.
c. Proper can replacement.
d. Penalties for ignoring Ordinance should be spelled out.
e. Good publicity stating the whole program and the benefits to be derived from it, should be put out.

The facts speak for themselves; it is a system that is needed. Tampa should move ahead with it. The combination pick-up system on collection was practically started by Tampa, now all cities in Florida either use it or are in the process of starting it. This curbside system with proper guidelines is also the best and solves many problems for refuse collection.

2 Attachments.-

BODILY INJURY BREAKDOWN

TOTALS FOR THE YEAR 1968 - SANITATION DEPARTMENT

NO. OF ACCIDENTS	PART OF BODY INVOLVED			ACCIDENT TYPE	TUB CATCH	TUB CATCH ACCIDENT COMP. [illegible] Cost [illegible]
12	HEAD	3-Lost Time 9-First Aid	53	STRIKING AGAINST	36--N/A 9--F/A	8-Lost Time @ $2,564.17
32	EYE	12-Lost Time 20-First Aid	78	STRUCK BY	64--N/A 8--F/A	6-Lost Time @ $ 157.56
55	ARM	26-Lost Time 29-First Aid	26	CAUGHT IN, ON, OR BETWEEN	24--N/A 2--F/A	8-Lost Time @ $ 383.07
52	BACK	37-Lost Time 15-First Aid	11	FALL - SAME LEVEL	1--N/A 4--F/A	6-Lost Time @ $ 207.03
30	TRUNK	22-Lost Time 8-First Aid	14	FALL - DIFF. LEVEL	13-N/A 0-F/A	1-Lost Time @ $ 32.68
25	FINGER	8- Lost Time 17-First Aid	67	SLIP OVER EXERTION	18-N/A 13-F/A	36-Lost Time @ $2,800.40
12	HAND	6- Lost Time 6- First Aid	14	EXPOSURE TO TEMP. EXTREMES	12-N/A 2-F/A	
57	LEG	23-Lost Time 34-First Aid	21	ABSORPTION, INGESTION, INHALATION	2-N/A 10-F/A	9-Lost Time @ $ 151.12
0	KNEE		3	CONTACT WITH ELECTRIC CURRENT	2-N/A 1-F/A	
24	FOOT	9- Lost Time 15-First Aid	7	OTHER (7-Cases) Not Appl. to Tub Catch		
3	ANKLE	1- Lost Time 2- First Aid	21	DOG BITE CASES 1-L/T 20-F/A	20-F/A	@ $ 7.30
5	TOE	3- Lost Time 2- First Aid				
8	HERNIA	4- Lost Time 4- First Aid				
0	OTHER			TOTAL MEDICAL COST		$15,739.73
154 - Lost Time Accidents 161 - First Aid Accidents 315 - Total Accidents			315	TOTAL COMP COST		$ 6,288.33
				FIRST AID COST		$ 625.00
						$ 22,653.06

BRIEF SUMMARY OF CITY OF TAMPA REFUSE COLLECTION STUDY

Of the 51 Cities answering the Questionnaire, one contracts out all pick-up service, so we are really talking about 50 cities. Of these 50 cities, 31 use back door service, 9 use back door and curbside, and 10 use curbside service exclusively.

The question was asked if they are having hiring problems with back door service. 100% are. This is a story in itself.

Of the 50 cities, 31 start their laborers (collectors) higher than Tampa, and 20 cities pay higher than Tampa on the top laborer. 26 of the cities start their drivers higher than Tampa, and 24 pay higher on the top, and in only seven of the cities does it take as long as Tampa to get to the top pay.

There are 12 cities including Tampa that have 50,000 to 500,000 population. All start with higher salary than Tampa and 20 cities with less than 50,000 pay higher than Tampa.

Taking all the cities and averaging their salaries, we come up with an average starting wage for a laborer of $1.90 and goes up to $2.19. Starting driver $2.13.and up to $2.53, but not five years to do it.

Twelve cities have limits on the amount of trash collected, and most all will not remove lumber. contractor's materials, or trees. Most all require limbs and branches cut to size.

To conclude this, the consensus seems to be the following five steps to modern, efficient collection service:

1. Curbside service with proper control, and limits on the amounts and types of trash.

2. Adequate and fair wages to get the type of people needed for this type work.

3. Proper funding to keep pace with modern collection, yet be fair to the tax payers to give them good service at a fair cost.

4. Proper equipment to do the job, good maintenance and repair and proper equipment replacement.

5. Good supervision, with professional people who know the refuse business.

NC/ilp
7-22/69

STATE OF FLORIDA

REFUSE SERVICE & DISPOSAL QUESTIONNAIRE

City & Population	No. of routes / No. units per route / No. men on truck	P/U made at: / % saved by curb p/u	Men p/u in rain. / Do you comp. h sate.	Basic work wk. / pay time ½ over 40 hrs.	Drivers req. to tote or just drive	Uniforms furnished partial set / Complete set	Rate of Pay Laborer Start / Top	Rate of Pay Driver Start / Top	Sick time / Vac. time yr.	Garbage P/U per/wk / Trash P/U / Limit on Trash	Container service City / Private / Both	Current Operational Cost Yr.	Disposal Method / Hauling distance / Cost per Ton	Resident. Service Charge	Plastic bags used by City / Customers required
BOYNTON BEACH 20,000	5 1100-1200 3	back door. 30%	Yes. -	44 hrs. No.	No. Yes.	No.	$2.04 -	$2.25 -	12 D 2 wks	2 .5 No.	None	$140,000.00	Landfill 7 miles -	$1.25 mo.	No. No.
CLEARWATER 50,000+	15 700-750 5	back door. 30%	Yes. -	40 hrs. No.	No. Yes.	Yes. Complete sets	$2.04 $2.79	$2.20 $3.15	120 hr 2 wks	2 2 No.	by City.	$500,000.00	Incinerator. 4 miles $5.81	$3.00 mo.	Yes. With cart. No.
COCOA 22,000	6 346 3	back door. 50%	No. Pay extra time depending on loss.	40 hrs. No.	No. Req. to take care of packer	Yes. Complete sets	$1.90 $2.10	$2.15 $2.25	12 d. 10 d.	2 2 No.	By City	$ 13,000.00	Landfill 11 miles $1,050.- mo. for landfill	$2.00	Yes. No.
DAYTONA BEACH 50,000	11 415 avg 2	back door. 25%	Yes. -	48 hrs. Yes.	Yes.	Yes. Complete sets	$1.60 $2.00	$2.00 $3.25	12 d. 1 & 2 wks.	2 2 No.	Privates	$550,000.00	Landfill 12 miles Yrly. rate.	$2.00	Yes. No.
DE LAND 12 to 15,000	3 925 3	back door. 35%	No. Use other help to catch up.	40 hrs. Yes.	Yes.	Yes. Complete sets	$1.75 $1.85	$1.85 $1.95	15 d. 15 d.	2 1 No.	By City	$ 90,000.00	Landfill 5 miles --	$2.00	No. No.
DUNEDIN 15,000	5 900 4	back door. 35%	Yes. -	44 hrs. Yes, over 44h.	Yes.	No. Partial set.	$2.04 $2.14	$2.15 $2.25	104 hr 104 hr	2 2 No.	By City	$171,000.00	Incinerator.4 mi Wed.trash to dump $4.50	$2.00	No. No.
DEL RAY BEACH 18,000	10 500 4	back door 40%	No. -	45 hrs. No.	Yes.	Yes. Complete sets	$1.82 $2.53	$1.99 $2.93	12 d 2 wks	3-2 None No.	Not at present, but soon.	$230,000.00	Landfill 2 miles No record	$2.00	No. No.
EATON PARK Landfill Operation only.-	--	---	---	45 hrs. No.	--	Yes Complete sets	$1.80 $2.20	--	9 d. 12 d.	---	---	----	Landfill -- .15¢ c.y.	---	----
EAU GALLIE 27,500	5 680 3-Resid. 1-Comm.	back door -?-	Yes -	40 hrs. Pay by route per day basis	Yes	No. Emp. rent them.	$1.95 $2.05	$2.05 $2.10	10 d. 10 d.	2 2 Yes	By City.	$213,525.00	Landfill 5 miles --	$2.25	Yes. No.

STATE OF FLORIDA

REFUSE SERVICE & DISPOSAL QUESTIONNAIRE

City & Population	No. of routes / No. units per route / No. men on truck	P/U made at: / $ saved by curb p/u	Men p/u in rain. / Do you compensate.	Basic work wk. / Pay time ½ over 40 hrs.	Drivers req. to tote or just drive	Uniforms furnished partial set / complete set	Rate of Pay Laborer Start / Top	Rate of Pay Driver Start / Top	Sick time / Vac. time yr.	Garbage P/U per/wk / Trash P/U / Limit on Trash	Container service City / Private / Both	Current Operational Cost Yr.	Disposal Method / Hauling distance / Cost per Ton	Resident. Service Charge	Plastic bags used by City / Customers required
FT. LAUDERDALE 150 to 300,000	26 5 to 600 4	back door. 33-1/3 %	Yes. -	40 hrs. No.	Yes.	Yes. Complete sets	$2.15 $2.47	$2.35 $2.73	12 d. 10+1 p/ yr.after 5 yrs.	2 2 No.	By City -- Private on Sund.	$1,030,166.- Collection $239,400.- Disposal	Incinerator 4 miles $3.01	$1.50	Yes. No.
FORT MYERS 24,000	8 -- 3	back-door & curbside	Yes -	40 hrs. Yes.	Yes	No. Raincoats only	$1.98 $2.08	$2.10 $2.35	15 d. 10 d.	2 - No.	By City	$390,200.00	Landfill 8 miles Not avail.	$2.15	Limited use. No.
FORT PIERCE 36,000	9 Res. 3 Comm. 450-500 3	back door. 80%	Yes -	37½ hrs Yes, over 37½	No.	Yes. Complete sets	$1.73 $2.25	$2.19 $2.87	12 d. 10 d.	2 1 Yes	By City.	$358,353.00	Landfill 7 miles $.50	$2.75	No. No.
GULFPORT 12,000	5 800 3	Curbside -	No.	40 hrs. No.	Yes & assist in trash p/u	Yes. Complete sets	$1.75		12 d. 10, 12 & 15 d.	2 - Yes	-	$ 92,345.00	Landfill 12 miles $.20	$2.85	No. No.
HAINES CITY approx. 12,000	- - 4	back door. -	Yes -	46 hrs. No.	No.	No. Gloves & rainsuits only	$1.65	$1.95	2 wks 2½ " 12 & 18 d.	2 - No.	None.	$ 61,756.00	Landfill 3 miles -	$1.75=1 [illegible] + .50¢ ea addit.can	No. No.
HOLLYWOOD. 107,000 summer 165,000 winter	18 to 22 600-1000 3-alleys 5-streets	Back door & alleys 15%	Yes Task basis.	40 hrs. No.	On occasions	Yes. Complete sets.	$2.30 Collector. $2.80	$2.75 $3.25	12 d. 10 d.	2 2 No.	By City	$761,000.00	Incinerator. 2-3 miles $2.27	$1.40	No. No.
HOMESTEAD 12,000	2-Resid. 2-Cont/Com. 2,600 tot. 2 rts. 2-train	Back door-30 to 40% alleys 50%	Yes Task basis	40 hrs. No.	Train-Yes Packers, No.	Yes. Complete sets	$2.25 $2.45	$2.15 $2.55	15 d. 10 d.	2 1 to 6 No.	By City. Lodal.	$150,285.00	Landfill 4 miles Dump oper. $10,000.-	$2.25	No. No.
INVERNESS. 3,000 +	3 900 homes 150 bus. 3	Curbside & back door. 50%	Yes. -	44 hrs. No.	No, but do.	No. Just boots, gloves & rainsuits	$1.65	Frmn/ driver $1.80	as of 10/69 12 d. 1 & 2 wks.	2 - No.	None.	$ 30,000.00	Dump-burn pit. 3miles No scale	No charge	No. No.

City & Population	No. of routes / No. units per route / No. men on truck	P/U made at: / % saved by curb p/u	Men p/u in rain. / Do you compensate.	Basic work wk. / Pay time ½ over 40 hrs.	Drivers req. to tote or just drive	Uniforms furnished / partial set / complete set	Rate of Pay Laborer Start / Top	Rate of Pay Driver Start / Top	Sick time / Vac. time yr.	Garbage P/U per/wk / Trash P/U / Limit on Trash	Container service City / Private / Both	Current Operational Cost Yr.	Disposal Method / Hauling distance / Cost per Ton	Resident. Service Charge	Plastic bags used by City Customers required
JACKSONVILLE 500,000	55 day rt 3 open tks 23 trash tks., 5-night, 2Sat & 4 Sunday.	Curbside 50%	Yes. Supt's discretion.	40 hrs. No.	Just drive	Yes Complete sets	$1.98 $2.30	$2.40 $2.65	15 d. 10 & 12 d.	3 2 No.	Both.	$3,500,000.-	Incinerator & Landfill 7 miles $3.50	No charge	No. No, but would like in the future.
JACKSONVILLE BEACH 18,000	2 800+ 2-4	back door. 40%	Yes. -	40 hrs. Yes, over 40 hrs.	Yes.	No. Just boots & rainsuits	$1.56 $1.90	$2.00 $2.41	12 d. 2 wks.	3 1 No.	By City	$172,000.00	Landfill 8 miles $1.00	$2.00	No. No.
KISSIMMEE 10,000	2 675 3	back door. 30%	Yes.	45 hrs. No.	No.	No. Just raincoats	$1.40 $1.89	$1.71 $2.19	12 d. 1,2 & 3 wks.	2 bi-wkly No.	By City	$ 45,220.00	Landfill 2 miles Nothing	$1.50 & up.	No. No.
LAKE WORTH 25,000 perm. 38,000 winter	3 650 to 750 3	Curbside-us.section alleys. 50%	Yes. -	40 hrs. No.	No, but help on occasions	No. Just hard hats & raincoats	$2.06 $2.53	$2.24 $2.82	30after 5 yrs. 10 & 15 d.	2 - No.	None.	$275,000.00 (Waste Removal;-Sweeping lot clearing Garb.Collection & disposal	Landfill 2¼ miles ,$.35	No charge	
LAKELAND 48,000+	8-Resid. 3-Comm.	Curbside few alleys. 35%	Yes. Collect garb.only no trash.	40 hrs. No.	No.	No. Just gloves & raincoats	$1.90 $2.10	$2.20 $2.53	12 d. 12 d.	2 2-Comb. w/garb. No.	By City	$319,410.00	Landfill 3.5 miles $20,000.- yr.to Co.	$1.50	No. No. Very few, but plan to promote w/ demonstration
LARGO 24,000	7 550 4	Curbside & back door -	Yes -	44 hrs. No.	Yes	No. Just,gloves hard hats & raincoats/ rainsuits	$1.89 $1.98	$2.08 $2.52	12 d. 14 d.	2 2 Yes.	By City.	Under study.	Landfill 3 miles U/study	$3.00	No. No.
MAITLAND 7,000	2 950 6	back door 50%	Yes -	40 hrs. -	No. & supervise crew.	Yes Complete sets	$1.70 $2.05	$1.85 $2.35	12 d. 1 wk	2 1 No.	By City	$ 43,000.00	Landfill 12 miles	$1.50	No. No.

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STATE OF FLORIDA

REFUSE SERVICE & DISPOSAL QUESTIONNAIRE

City & Population	No. of routes / No. units per route / No. men on truck	P/U made at: / % saved by curb p/u	Men p/u in rain. / Do you compensate.	Basic work wk. / Pay time ½ over 40 hrs.	Drivers req. to tote or just drive	Uniforms furnished partial set / complete set	Rate of Pay Laborer Start / Top	Rate of Pay Driver Start / Top	Sick time / Vac. time yr.	Garbage P/U per/wk / Trash P/U / Limit on Trash	Container service City / Private / Both	Current Operational Cost Yr.	Disposal Method / Hauling distance / Cost per Ton	Resident. Service Charge	Plastic bags used by City / Customers required
MIAMI 350,000	60	Back door. 40%	Yes -	40 hrs. No.	No.	Yes. Complete sets	$ 2.59 $2.81 + Long.	$ 2.82 $3.16	12 d. 80, 120 & 160 hrs.	2 - Yes	Both	$5,400,000.-	Incinerator(Garb) Landfill (rubbish) 10 miles $5.98	No charge	No. No.
MIAMI BEACH 84,000	18 550 4	back door. 20%	No. Use men f/Sweeper crews	40 hrs. No.	No. But do when needed	Yes. Complete sets	$2.19 $2.65	$2.50 $3.15	8 d. 12 d.	3 - No.	Private	$1,093,567.-	Incinerator & Landfill 9 miles $3.47	$19.00 yr.	No. No.
NAPLES 12,000	4-Resid. 2-Cont. 450 3 or 4.	back door/gar curbside trash 30%	Yes, light min. Allow to work overtime if needed	40 hrs, Yes, over 44 hrs.	Yes.	Yes. Complete sets	$2.50	$2.75	12 d. 2 wks.	2 2-3-6 No	By City.	$190,000.00	Landfill 3 miles -	No charge	No. No.
NEW SMYRNA BEACH 11,000+	7 650 3	back door & curb. 30%	Yes. -	48 hrs. No.	Yes.	Yes. Compete sets	$1.86	$1.86	12 d. 10 d.	2 3 No.	By City	$126,000.00	Landfill 5 miles -	$2.00	No. No.
NORTH MIAMI BEACH 31,000	8 750-alley 425-carry	back door &alleys 33-1/3 %	Yes. -	40 hrs. No.	Yes.	Yes Complete sets	$2.12 $2.60	$2.29 $2.93	10 d. 12 d.	2 2 w/garb. No.	By City	$286,104.00	Landfill 22 miles rd. trip $1.00	$18.00 yr.	Yes. No.
OCALA 25,000	18 450 4	back door & curb. 35%	Yes. -	40 hrs. No.	No.	No. Just rain-coats or suits	$1.56 $1.98	$1.80 $2/31	12 d. 12 d.	2 2 No.	By City	$350,000.00	Landfill 10 miles use t/ trailer $.75	$1.50, $2.50 & $3.00	No. No.
ORLANDO 109,000	21-Resid. 8 - Comm.	back door 25 to 30%	Yes.	50 hrs. No. Task force	No.	Yes. Complete sets	$1.82 $2.45	$2.14 $2.94	12 d. 12 d.	2 3 Yes.	By City	$1,239,925.-	Incinerator & Landfill 5½ mi. $1.25	$3.25	No. No.

STATE OF FLORIDA

REFUSE SERVICE & DISPOSAL QUESTIONNAIRE

City & Population	No. of routes / No. units per route / No. men on truck	P/U made at: % saved by curb p/u	Men p/u in rain. Do you compensate.	Basic work wk. Pay time ½ over 40 hrs.	Drivers req. to tote or just drive	Uniforms furnished partial set complete set	Rate of Pay Laborer Start / Top	Rate of Pay Driver Start / Top	Sick time Vac. time yr.	Garbage P/U per/wk Trash P/U Limit on Trash	Container service City / Private / Both	Current Operational Cost Yr.	Disposal Method Hauling distance Cost per ton	Resident. Service Charge	Plastic bags used by City Customers required
PALM BEACH 5,000 summer 35,000 winter	4-summer 6-winter 300-600 4	back door. 33⅓%	Yes -	40 hrs. Yes.	No.	Yes. Complete sets.	$2.02 $2.68	$2.32 $2.94	5-20 d 5-20d	5x-summ. 5x-wint. - No.	By City	$188,054.00	Landfill 26 miles Compact. trailer. $1.00	None.	No. No.
PANAMA CITY 35,000 ±	Under Contract.	Curbside 50%	----------	----------	UNDER CONTRACT	----------	----------	----------	----------	2 2	Both.	$250,000.00 ±	Landfill. Contract.	$2.00	No. No.
PENSACOLA 63,000	10-Resid. 3- Comm. 1-Trash 1-Chipper. 790 3	Curbside '149% . Exp. survey March/69	Yes. -	40 hrs. Yes.	No, but do relieve	Yes. Partial. City-3 sets Emp.-2 "	$1.80 $1.91	$2.20 $2.70	12 d. 12 d.	2 2 No.	Both.	$527,806.00	Landfill. Trash burner f/ leaves & pine needles. 13.5 mi. $20,000.- yr.fee to County.	No charge	No. No.
POMPANO BEACH 35 to 40,000	7-Resid. 2-Comm/Cont.	Curb & back door. 35%	Yes. Task system.	44 hrs. Task basis.	No. At their own discretion	No. Just gloves hard hats, boots & rainsuits.	$2.05 $2.35	$2.06 $2.64	10 d. 10 d.	2 2 No.	Both.	$400,000.00	Incinerator. 5 miles $3.00 garb. $1.50 trash	No charge	No. No.
PUNTA GORDA 6,000	4 - 3 or 4.	back door 10%	Yes. -	48 hrs. No.	Drive & p/u trash along curb.	Yes.	$1.60 $1.68	$1.85 $1.95	10 d. 14 d.	2 2 No.	Private.	$ 30,000.00	Landfill 2½ miles. -	$2.00	Yes. No.
RIVIERA BEACH 26,000	4 550 2 w/train	Curbside 15%	Yes -	48 hrs. No.	Yes. Both	Yes. Complete sets.	$1.85 $2.25	-	Yes.	2 3 No.	By City.	$134,000.00	Landfill 5 miles -	$1.50	- -
SANFORD 22,500	6 approx. 1,000 3	Curbside if no alley available. 30%	Yes. -	40 hrs. No.	No. Sometimes help w/ trash	Yes. Complete sets.	$1.90 $2.10	$1.75 $2.11	15 d. 3 wks.	2 - No.	Not available.	$118,885.00	Landfill 2 miles	$2.00	No. No.

STATE OF FLORIDA

REFUSE SERVICE & DISPOSAL QUESTIONNAIRE

City & Population	No. of routes / No. units per route / No. men on truck	P/U made at: % saved by curb p/u	Men p/u in rain. Do you compensate.	Basic work wk. Pay time ½ over 40 hrs.	Drivers req. to tote or just drive	Uniforms furnished partial set / complete set	Rate of Pay Laborer Start / Top	Rate of Pay Driver Start / Top	Sick time Vac. time yr.	Garbage P/U per/wk Trash P/U / Limit on Trash	Container service City / Private / Both	Current Operational Cost Yr.	Disposal Method Hauling distance Cost per Ton	Resident. Service Charge	Plastic bags used by City Customers required
SOUTH MIAMI 13,500	3 900 avg. 3	back door. 30%	Yes. -	40 hrs. -	No.	Yes. Complete sets	-	-	Yes	2 2 No.	Both	approx. $225,000.00	Incinerator-4 mi. Landfill 16 miles $1.60	$3.67	Yes No.
ST. PETERSBURG est.222,000	45-Resid. 12-Comm. 7-900 3	back door & alleys, trash @ curb. Unknown.	Yes -	48 hrs. Yes.	Yes.	Yes. Complete sets	$2.03 $2.13	$2.36 $2.49	12 d. 12 d.	2 2 No.	By City	---	Incinerator, Composting Landfill 5 miles $3.40-$3.24 & $.30	$2.25	No. No.
ST. PETERSBURG BEACH 8,000 perm.	5 - 4	back door & alleys 25%	Yes. Task basis	45 hrs. No.	No. But,most drivers assist. Task fc.	Yes. Complete sets	$1.76 $2.04	$1.94 $2.24	12 d. 10 d.	2 2 Yes.	By City	$150,000,00	Landfill. Trash-dump separate, 18 miles .25¢cu.yd. 25 c.y.= 10 tons.	$27.00 yr.	No. No.
TAMPA 315,000	76-day rt. 6-night comm. 8-cont. 656 avg. 4	back door & alleys 30%	Yes. Task force basis.	48 hrs. No.	Yes.	Yes. 2 issues of 3 sets.	$1.77 $2.19 + Longevity	$2.00 $2.49	114 hr 114 hr	2 2 No.	Both.	$2,785,334.- Sanitation $394,217.00 Incinerator	Incinerator & Landfill. 6 miles $2.46	$3.00	No. No.
TEMPLE TERRACE 7,500	2 450 4 max.	back door. -	Yes. -	48 hrs. No.	No. Assist in p/u cont. Trash.	Yes. Complete sets	$1.65 $1.85	$2.00 $2.25	Yes. 10 d.	2 2 No.	By City	approx. $75,000.00	Temp.use Tampa's Incinerator & Landfill. 6 Miles $3.50	$3.00	No. No.
TITUSVILLE 33,400+	6-Resid. -Comm. - 2	back door. -	Yes. Task force	54 hrs. No.	Yes. Train system	Yes Complete sets	$1.69	-	12 d. 10 d.	2 2 Yes.	By City	$308,741.00	Landfill 6 miles $.95	$1.50	No. No.

City & Population	No. of routes / No. units per route / No. men on truck	P/U made at: / % saved by curb p/u	Men p/u in rain. / Do you compensate.	Basic work wk. / Pay time ½ over 40 hrs.	Drivers req. to tote or just drive	Uniforms furnished / partial set / complete set	Rate of Pay Laborer Start / Top	Rate of Pay Driver Start / Top	Sick time / Vac. time yr.	Garbage P/U per/wk / Trash P/U / Limit on Trash	Container service City / Private / Both	Current Operational Cost Yr.	Disposal Method / Hauling distance / Cost per Ton	Resident. Service Charge	Plastic bags used by City / Customers required
VERO BEACH 17,000	4 - 4	back door. 15%	Yes -	44 hrs. No.	No.	Partial. Gloves, boots & raincoats	$1.99	$2.11 $2.35	10 d. 10 d.	2 - No.	None.	$181,627.00	Landfill 3 to 5 mi. $.28	$2.75	No. No.
WEST PALM BEACH. 68,000	13 250-350 3	Curbside & alleys 30%	Yes. If lost time, is made up & time½ paid over 40H.	Manpower short, if needed men work 7 days. Yes.	No. Can be assigned where & when needed.	No. Just gloves & raincoats	$1.82	$2.00	12 d. 12 d.	2 2 Yes.	Both	$636,196.00	Landfill 10 miles $2.00	$1.35	No. No.
WILTON MANOR 16,000	3 600 2	back door & curb. 35 to 50%	Yes. -	40 hrs. No.	Yes. Use Lodal Evo Tks, designed for 2 men	Yes. Complete sets	$2.18 $2.92	$2.53 $3.22	12 d. 12 d.	2 2 Yes.	By City	$120,974.00 8 mos.	Incinerator & Landfill 9 mi. $3.50	$2.00	No. No.
WINTER HAVEN 18,000	4 600 -	back door. 25%	Yes -	45 hrs. No.	Drive & help p/u trash	Yes. Complete sets	$1.61 $1.78	$1.81 $2.05	12 d. 2 wks.	2 2 Yes.	By City	$131,000.00	Landfill 5 miles -	$2.00	No. No.
WINTER PARK 30,000	4 garb. 5 trash	back door & curbside 30%-labor	Yes. -	45 hrs No.	Drive & empty cont. @ st. set by toter	Yes Complete sets	$1.76 $2.04	$1.95 $2.95	2 wks. 2 wks.	2 - Yes.	By City	$346,000.00	Landfill & dump to burn trash 19 mi. $.40 c.y.	$40.00 yr.	No. No.
NOT IDENTIFIED (Post marked Miami) 46,000.	13 2400 garb. 1500 trash 4	back door curb. -	No. Comp.time or overtime pay.	42½ hr No.	No.	Yes.	$2.16 $2.34	$2.41 $2.73	85 hr. 106 hr.	2 - Yes.	Both	$889,534.72	Incinerator. 6 miles $4.00	$40.00 yr.	No. No.
NOT IDENTIFIED. 16,000	3 700 3	back door & alleys 15%	Yes. -	40 hrs. -	No.	Yes. Complete sets	$2.12 $2.25	$2.00 $2.50	12 d. 12 d.	2 1 No.	Both	$135,000.00	Landfill 2.5 mi. $1.00	$2.00	No. No.

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= REFUSE SERVICE AND DISPOSAL STUDY SUMMARY =

Of the 71 letters sent out, we had a response from 51. Of these, one contracts out everything, so actually we are talking about 50 Cities with comparable problems.

The main problem in most instances is the man power shortage and the problem of getting men to do this type work, and the main solution to this seems to be curbside service amongst others. The partial answers to most problems in Sanitation appear to be those listed below:

1. Curbside service with proper control, and limits on the amounts and types of trash.
2. Adequate and fair wages to get the type of people needed for this type work.
3. Proper funding to keep pace with modern collection, yet be fair to tax payers to give them good service at a fair cost.
4. Proper equipment to do the job, good maintenance and repair and proper equipment replacement.
5. Good supervision, with professional people who know the refuse business.

Going back to the report, you will notice in columns 1 and 2, there is a great variance in the units per route; this is probably due, in part to tourist fluctuation. But in general terms, if you take the population and divide it by 3.5, which is national average per person for household, you will come up with approximate units, divided by number of routes being run, it will give you approximate units per route.

In column #3, eleven cities use curbside only. Eight use curb and back door, the rest use back door service. In most instances, all those using back door service exclusively, feel that curbside pick up is the ultimate answer on pick-up location.

In columns #8 & 9 rate of pay. By taking all the cities and average them together, we come up with an average salary of:

Laborer	- Start	$1.90 hr.
"	- Top	$2.19 "
Driver	- Start	$2.13 "
"	- Top	$2.53 "

This is a partial guide, but it should be remembered there are still hiring problems at this rate.

Trash collection appears to be another problem. Several cities are using limits which all cities should do. These limits vary from: 2 garbage cans placed at curbside, to 1 cu. yd. loose, 2 cu. yds. or 1 load = 18 yds. or 20 minutes of service. Regardless of the limit set, it should be maintained, as well as cutting limbs and branches to a limited size.

INTERESTING COMMENTS AND RECOMMENDED SOLUTIONS TO HIRING PROBLEM:

Dunedin - Solution recommended. "Living wage - Good equipment - Fringe benefits - "Esprit de Corps" - Training program". Ralph E. Higinbotham, Supt. Sanitation.

Hollywood - Solution recommended: "I wish I had that answer!"

North Miami Beach - Comments - "I think it is time that A.P.W.A. start a program with cities in Florida, to study the conditions that exist in the everyday pickup of garbage and trash and come up with a uniform program or format that every City should adopt because of yearly all around growth of plants-trees-bushes etc. and problems that exist only in the state of Florida. I suggest that this program be brought up at the next annual meeting in Jacksonville Beach as an important issue." Ralph T. Volpe Jr. Supt. Sanitation Div.

Ocala - Solution recommended: "More pay and better working conditions." A. E. Sessions, Acting Director Public Works.

Pensacola - Comments: "The City of Pensacola conducted an experimental back yard carry out method of collection on one route, which had 712 units of collection. Experiment conducted during months of February and March, 1969. Careful time study and close supervision of experiment was attained. Overall costs for this particular route jumped 149%. The Sanitation Division contemplates no change from our present efficient, economical method of curbside collection." "Presently under construction a refuse transfer station, scheduled for completion August/September 1969, will cut 50 miles per day per route." T.W. Royster, Supt. Sanitation Division.

South Miami - Comments - "It appears to me that to reduce cost of collection and minimize labor problems, curbside collection is a must". Stephen Mason, P.W. Director.

NC/ILP
July 22, 1969.

Cost Parameter \ City	Tampa Florida	Atlanta, Georgia	Milwaukee, Wisconsin	Minneapolis, Minnesota	Tacoma, Washington
Cost/Service/Year	$15.44	$18.93	$29.14	$35.17	$19.00

APPENDIX E

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JDP

ORDINANCE NO. 5671 -A

AN ORDINANCE AMENDING SECTION 17-2 OF THE CITY OF TAMPA CODE, PROVIDING TIME LIMITS FOR PLACING REFUSE CONTAINERS OUT FOR COLLECTION AND REMOVING SAME; AMENDING SECTION 17-3 OF THE CITY OF TAMPA CODE PROVIDING FOR AN ADDITIONAL CHARGE FOR COLLECTION OF NON-CONTAINERIZED OR BUNDLED TRASH; AMENDING SECTION 17-20 OF THE CITY OF TAMPA CODE PROVIDING FOR RESIDENTIAL AND COMMERCIAL RATES AND CHARGES; AMENDING SECTIONS 17-38 AND 17-39 OF THE CITY OF TAMPA CODE, PROVIDING FOR THE USE OF PLASTIC BAGS FOR DISPOSAL OF GARBAGE; AMENDING SECTION 17-40 OF THE CITY OF TAMPA CODE, PROVIDING FOR THE AREA WITHIN WHICH GARBAGE CONTAINERS SHALL BE PLACED FOR COLLECTION AND PROHIBITING THE USE OF 55 GALLON DRUM CONTAINERS; AMENDING SECTION 17-41 OF THE CITY OF TAMPA CODE, PROVIDING FOR RUBBISH, LEAVES, TREE TRIMMINGS OR OTHER DRY REFUSE TO BE CONTAINERIZED, BUNDLED OR TIED AND PROVIDING FOR ADDITIONAL CHARGES FOR REMOVAL WHEN NOT CONTAINERIZED, BUNDLED OR TIED; REPEALING ALL ORDINANCES IN CONFLICT HEREWITH AND PROVIDING FOR AN EFFECTIVE DATE.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF TAMPA, FLORIDA:

Section 1. That Section 17-2 of the City of Tampa Code be and the same is hereby amended by renumbering subparagraph (g) as subparagraph (j) and by adding thereto subparagraphs (g), (h), and (i), and, as amended, said sections shall read as follows:

"Sec. 17-2. Prohibited acts.

It shall be unlawful for any person to do any of the following:

(a) To place or cause to be placed any garbage or trash upon the property of another;

(b) To convey or cause to be conveyed over and upon any of the streets and alleys of the city any garbage or trash without a permit or license, or both such permit and license, as required by the regulations affecting the collection and disposal of garbage and trash;

(c) To deposit or dispose of any garbage or trash in any public street, alleyway, stream, ditch, river, pond, bay, creek, park or public place in the city except at such incinerators or dumps as shall be designated by the superintendent;

(d) To deposit, dump, or dispose of any garbage or trash at, upon, or in any incinerator or dump as shall be designated by the superintendent without first obtaining the permission of the custodian thereof;

(e) To burn or bury any garbage within the city except at such incinerators or dumps as shall be designated by the superintendent, or to burn any trash within the city, except at such incinerator or dump without first obtaining a permit from the fire marshall of the city;

(f) To produce or accumulate any trash, refuse, building wastes, or tree trunks and branches away from such person's premises while such person is acting in the capacity of a contractor, such as a tree surgeon landscaper, or mechanical or building contractor, without removing the same to a designated dump or incinerator;

(g) To place garbage, trash or refuse containers out adjacent to the street any earlier than sunset, the day prior to a scheduled collection and to leave garbage, trash or refuse containers out adjacent to the street any later than sunset on the day the garbage, trash or refuse is collected;

(h) To place any garbage, trash or refuse out for collection in any alley, service drive, easement or right-of-way not serviced by Sanitation Department packer trucks;

(i) To place any garbage, trash or refuse out for collection adjacent to the street if Sanitation Department packer trucks service the area from an established alley.

(j) To do any act prohibited or to fail to do any act required by the regulations affecting the collection and disposal or garbage and trash within the city."

Section 2. That Section 17-3 of the City of Tampa Code be and the same is hereby amended by amending the third unnumbered paragraph therein and, as amended, said section shall read as follows:

"Sec. 17-3. Placing or permitting offensive matter on streets, vacant lots, in streams, etc.

No owner, or agent of any premises or lot, vacant or unimproved, or tenant or occupant of any premises, if occupied, or any other person shall cause or permit thereon the accumulation of, or place upon any street

or sidewalk or in any building, outhouse, yard or enclosure or into any pond, stream, ditch, or body of water, any dung, filth, stable bedding, offal, decaying vegetables, meat or fish, animal matter, dead animal, loose or waste paper, dirty water, brine or rubbish of any kind which is, or may become unwholesome or offensive to any person.

No person shall throw, scatter or leave any loose paper, trash, rubbish, tree clippings, or any other dry refuse or waste matter of any kind or character on the streets or sidewalks of the city. No merchant, storekeeper or other person shall sweep onto the sidewalk, pavement or any of the streets of the city the sweepings or trash from such store or premises. All loose paper, trash, or other dry refuse matter shall be placed in a box or other receptacle with a cover to prevent scattering of the same by the wind, which receptacle shall be placed conveniently accessible to the sanitation department.

Any trash or waste material, which by reason of its bulk or shape cannot be placed within a container, shall be tied in a bundle and placed out adjacent to, but not in the street for collection. If the trash or waste material is of such a nature that it cannot be containerized or bundled, it shall be placed out adjacent to, but not in the street for collection. Such trash or waste material will be collected and disposed of by the department on a will-call basis for which service there will be a charge in addition to the minimum charges set forth in this Chapter.

It shall be unlawful for any person to throw or deposit any kind of refuse matter, liquid or solid, fermentable, non-fermentable, dead animal, fish or fowl, into or upon any public square, street, unoccupied lot or into any waters of the city."

Section 3. That Section 17-20 of the City of Tampa Code be and the same is hereby amended to read as follows:

"Sec. 17-20. Established.

There are hereby fixed and prescribed monthly rates and charges (herein sometimes called the service charges) for the services and facilities furnished and to be furnished by the department for the collection and disposal of garbage and trash to be paid by the owner, tenant, or occupant of each premises or parcel of land which shall use or be served by such services and facilities, which rates and charges shall be payable monthly in advance, as follows:

(a) For residential premises, where the garbage, trash or refuse is collected curbside or from a serviceable alley, the rate shall be $3.00. An owner of residential premises may request the department to continue backdoor collection (tub catch) for which service the rate shall be $6.00.

Any garbage, trash or refuse placed out for collection by a residential owner or commercial establishment that exceeds the amount picked up by the department as normal service, shall be collected and disposed of by the department within a reasonable time after receiving notice of the location of same, for which service there will be a charge in addition to the minimum charges set forth in this Chapter.

(b) For commercial premises the rates shall be:

(1) For apartments and trailer parks $3.00 for the first living unit or trailer and $3.00 for each additional living unit.

(2) For commercial premises served by a city commercial container the rate shall be computed (by the volume of the container) upon the basis of one dollar and twenty-five cents ($1.25) per cubic yard plus a monthly container service charge based upon the size of the container as follows:

Two cubic yards	$ 8.00
Three cubic yards	$ 8.00
Four cubic yards	$ 8.00
Six cubic yards	$10.00
Eight cubic yards	$12.00

(3) For all other commercial premises the monthly rate shall be computed upon the basis of one dollar and twenty-five cents ($1.25) per cubic yard with a minimum of four dollars ($4.00).

(c) For any commercial premises upon which or in which there shall be, in addition to the commercial establishment, one or more living units with kitchen facilities, then the commercial rate set forth in this section shall be applicable to the total premises.

(d) There shall be no refund of any service charge prescribed herein on account of partial vacancy. There may be a refund of service charges, not to exceed charges assessed for a one-year period, for total vacancy of the premises, provided that the owner of the premises, requests the refund from the department in writing and the department determines that no service has been rendered the premises for the period for which the refund is requested.

(e) There shall be no free services rendered by the department for the collection, transportation, or disposal of garbage and trash.

(f) For any premises owned, leased, or occupied by the United States of America or any agency thereof, the State of Florida or any political subdivision thereof, including any body politic and corporate created under the laws of the United States of America or of the State of Florida, the city may enter into contracts, negotiated by the mayor and approved by the city council, with any such body or agency for the collection, transportation, and disposal of garbage and trash prescribing rates and charges to be paid by such body or agency in lieu of the rates hereinabove prescribed; provided, however, that the charges to be paid by such body or agency shall not be less than an amount which is fair and equitable taking into account the cost to the city of such collection, transportation, and disposal.

(g) For any and all trash not picked up by the department as normal trash, such as, but not limited to loose trash (not tied or containerized) logs and stumps in excess of four feet or exceeding 60 pounds, dirt, rocks, sod, construction debris, large appliances (refrigerators, stoves, washers, heaters, etc.), there will be an additional minimum service charge of $5.00 plus a charge of $1.25 per cubic yard for all trash picked up that is in excess of four cubic yards."

Section 4. That Section 17-38 of the City of Tampa Code be and the same is hereby amended to read as follows:

"Sec. 17-38. Garbage to be kept separately; sanitation department to provide for removal.

All garbage shall be kept in galvanized iron containers with proper fitting galvanized iron covers, which covers and containers shall be watertight and placed over such containers at all times. Plastic bags may be used if they are tied or sealed to prevent spillage. Other type containers and covers may be used upon approval by the sanitation department of the city. The garbage so deposited in such containers, as herein provided, shall be removed under the direction of the sanitation department in watertight receptacles, under such rules and regulations as the department shall make such provisions for the removal, disposition or disposal of such garbage as shall be as inoffensive to the people of the city and as little prejudicial to the public health as possible."

Section 5. That Section 17-39 of the City of Tampa Code be and the same is hereby amended to read as follows:

"Sec. 17-39. Garbage containers required; cleanliness.

The occupant of every house, apartment or tenement or proprietor of every public eating establishment shall provide galvanized iron containers with proper, well fitting galvanized iron covers, adequate to contain the garbage accumulating in such establishment, and shall place all such garbage therein. Plastic bags may be used if they are tied or sealed to prevent spillage. Other type containers and covers may be used upon approval by the sanitation department of the city. The owner of each garbage container will be held responsible for the cleanliness and sanitary condition of the same."

Section 6. That Section 17-40 of the City of Tampa Code be and the same is hereby amended to read as follows:

"Sec. 17-40. Containers to be placed for convenient collection - exceptions.

All garbage containers, rubbish and waste receptacles, shall be kept in a place convenient and accessible for removal by the city collectors. Such convenient location shall be adjacent to but not in the street or within five (5) feet thereof, but not upon or on any public sidewalk. If the area has an alley serviced by sanitation department packer trucks, then all refuse will be placed adjacent to but not in the alley for collection, provided, however, that residents, who by reason of age, health, physical incapacity or handicap cannot comply with the provisions of this paragraph may be exempted therefrom after (1) presenting to the Sanitation Department a medical certificate reflecting that it would be injurious to their health to carry containers to the front at curbside and (2) completing a Disability Allowance Form furnished by the Sanitation Department. A resident exempted from the provisions of this paragraph shall continue to receive back-door collection at the standard curbside rate of $3.00 per month.

Garbage and rubbish containers will be removed from and returned to the designated place at all dwelling houses, tenements, etc., especially in those districts of the city where some irregularity in time of collection is inevitable, and at locations where the placing of containers at the street side in anticipation of arrival of the collectors would result in public inconvenience. Fifty-five gallon drums shall not be utilized for containerizing garbage or trash."

Section 7. That Section 17-41 of the City of Tampa Code be and the same is hereby amended to read as follows:

"Sec. 17-41. Rubbish and trash to be placed in containers; depositing on street prohibited.

All rubbish, refuse matter, household waste, trash and wastage of manufacture or handling of merchandise, shall be placed by the occupant of any property or owner of unoccupied land or lots, in well-made containers or receptacles with covers both for cleanliness and sanitation

to facilitate removal of the same. All rubbish, leaves, tree trimming or other dry refuse shall be placed in a container, bundled or tied, for collection and shall be placed adjacent to or within five (5) feet of the street but not in the street. If the area has an alley serviced by sanitation department packer trucks, then all refuse will be placed adjacent to, but not in the alley, for collection. All logs, tree limbs, brush, palm fronds, etc., will be cut in 4-foot lengths or less and bundled for collection. Each item or bundle shall not exceed 60 pounds in weight. No person shall deposit or leave any rubbish, leaves, tree trimmings or other dry refuse on the streets or sidewalks in the city.

Any trash or waste material which by reason of its bulk or shape cannot be placed within a container, or cannot be bundled or tied, shall be picked up by the department on a will-call basis for an extra charge. Such trash or waste material will be placed adjacent to the street for collection, or within five (5) feet thereof, but not in the street. Logs or tree limbs must be cut in 4-foot lengths or less. Such trash or waste will be disposed of as promptly as the department of sanitation can handle it.

Rubbish and waste material caused by construction or repairs of building will not be removed by the city and it shall be the responsibility of the contractor or owner to remove and dispose of same. If it is determined by the department that the rubbish and waste material constitute a hazard and that it is necessary to remove same in order to protect the health and welfare of the citizens of the city, the department shall remove same and, in this event, there will be a charge for such service which will be assessed to the owner of the property from which the rubbish and waste material was removed."

Section 8. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 9. This ordinance shall be published and posted as provided by law within five (5) days after it shall become law, and shall take effect immediately upon its publication.

PASSED AND ORDAINED by the City Council of the City of Tampa, Florida, on MAY 22 1973.

R. L. Cheney

CHAIRMAN OF THE CITY COUNCIL

ATTEST: W. L. Clark

CITY CLERK

APPROVED by me on MAY 23 1973

Dick A. Greco

MAYOR

Reproduced from best available copy.

CITY OF TAMPA, FLORIDA

DEPARTMENT OF SANITATION

Phone 877-6031
Area Foreman_____
RULES AND REGULATIONS

GARBAGE RULES

1. DRAIN AND WRAP ALL GARBAGE.
2. KEEP CAN OFF DIRT SO IT WILL NOT RUST.
3. REPLACE WORN OUT CANS OR THOSE WITH HOLES.
4. USE THE STANDARD 20 GALLON GARBAGE CANS OR PLASTIC BAGS WITH TWIST TIE TO PREVENT SPILLAGE.
5. YOUR CAN SHOULD BE WATER TIGHT WITH LID THAT FITS.
6. DO NOT PLACE DIRT, BRICKS, PLASTER, BUILDING MATERIALS OR MAGAZINES IN THE GARBAGE CAN.
7. KEEP COVERS ON CANS AT ALL TIMES.
8. ALL GARBAGE MUST BE SET OUT ADJACENT TO, BUT NOT IN THE STREET FOR COLLECTION, OR ALLEY SIDE, ON ALLEYS UTILIZED BY SANITATION PACKERS, BUT NOT AT BOTH PLACES.
9. REFUSE SET OUT FOR COLLECTION AT CURB OR ALLEY SIDE, CANNOT BE SET OUT EARLIER THAN SUNSET THE DAY PRIOR TO COLLECTION, AND CANS MUST BE REMOVED BY SUNSET THE DAY OF COLLECTION.

TRASH REGULATIONS

1. PLACE OUT ADJACENT TO STREET SUCH TRASH AS, RUBBISH, TREE OR SHRUBBERY CLIPPINGS, LEAVES, MAGAZINES AND QUANTITIES OF NEWSPAPERS. ALL LOOSE MATERIALS AND TRASH MUST BE PLACED IN A CARTON, PLASTIC BAG OR ANY TYPE CONTAINERS OR CUT IN 4' LENGTHS AND TIED IN BUNDLES NOT TO EXCEED 60 LBS. NO 55 GALS. DRUMS WILL BE AUTHORIZED.

2. BUILDING MATERIALS, TREE TRUNKS AND LUMBER ACCUMULATED BY A CONTRACTOR, WILL BE THEIR RESPONSIBILITY TO REMOVE.

3. TREE TRIMMINGS AND LIMBS MUST BE CUT TO 4' OR LESS AND TIED IN BUNDLES NOT TO EXCEED 60 LBS.

4. WHEN A PERSON BY CONTRACT, CUTS DOWN TREES FOR YOU, HE MUST HAUL IT AWAY.

5. TRASH IN A CONTAINER, OR BUNDLED, PLACED OUT BY THE CURB WILL BE REMOVED TWICE WEEKLY ALONG WITH YOUR GARBAGE.

6. ANY LOOSE TRASH WILL BE REMOVED ON A WILL-CALL BASIS (Ph.877=6031) FOR A SERVICE CHARGE OF FIVE ($5.00) COVERING UP TO 4 CUBIC YARDS AND $1.25 PER CUBIC YARD WHEN EXCEEDING 4 CUBIC YARDS. Also, Ph.223-8211.

7. NEVER PUT ANY TRASH IN THE STREET. PLACE IT OUT ADJACENT TO STREET.

THESE FORMS ARE FURNISHED FOR YOUR INFORMATION AND UNDERSTANDING. WITH YOUR FULL COOPERATION, WE WILL BE ABLE TO RENDER THE FINEST SERVICE ON THE BEST POSSIBLE SCHEDULE AND HAVE A CLEANER CITY.

SANITATION DEPARTMENT
1512 N. CLARK AVENUE
TAMPA, FLORIDA 33607

Dear Citizen:

This is to inform you, that your collection days are Monday and Thursday. It is illegal and in violation of City Code Section 17-2, Paragraph (G), to place your refuse containers out any earlier than sunset the day prior to collection day and to leave them out any later than sunset the day of collection. We know that your desire, like ours, is to have a clean, neat city we all can take pride in.

Your cooperation in this matter would certainly be appreciated.

If there are any questions regarding this, please give us a call. Sanitation Department 877-6031 or Service and Information 223-8211. Thank you.

City of Tampa Sanitation Department

Norman Conaty
Acting Director

NC/bf

DISABILITY ALLOWANCE

This is to request a disability allowance for rear door service.

I live alone _____
(explain if you do not have anybody to help you)

and I am physically handicapped to the degree that I cannot place my household garbage at the curb side for collection.

Name:_____ _____
(Please Print) Signature

Address:_____

Date:_____

DR'S CERTIFICATE ACCOMPANIED:_____

AREA FOREMAN OR SUPERVISOR VERIFICATION

I find the above statement to be true - false. This party should, should not, receive rear door collection, and pay the standard $3.00 curbside rate.

_____
Foreman or Supervisor

Date:_____

Route assigned to:_____

DEPARTMENT APPROVED:_____ DENIED:_____

A REMINDER

Date issued: _____

THE CITY OF TAMPA
NO LONGER COLLECTS LOOSE TRASH
WITHOUT CHARGE.

Customized collection of large trash is available. The service charge is $5.00 plus $1.25 per cubic yard over four (4) cu. yds. Call the Sanitation Dept. or Service Information Center to arrange for this service. The charge will be added to your Utility Bill.

TELEPHONE: 877-6031 or S. & I.
223-8211

Residents desiring to move their own trash, not picked up by the Dept. can dispose of same, free at the City Landfill or Incinerator, by showing their water bill to the Attendant.

Brush and trimmings placed in extra garbage cans, plastic bags or bundled, will be picked up on the twice-a-week garbage pickup days. They must be placed on a passable alley or at the curbline for collection.

IF THE BRUSH PILE IS NOT REMOVED BY _____, THE SANITATION DEPARTMENT WILL REMOVE IT and charge accordingly under the special services provisions of City Code Section 17-41.

CITY OF TAMPA, FLORIDA.

ILLEGAL TRASH PILE
REMOVAL DATE: _____

NAME: _____

ADDRESS: _____

LOCATION OF TRASH PILE: _____

_____

DATE REMINDER WAS ISSUED: _____

CHARGE: $ _____ based on _____

_____

_____
Foreman or Supervisor

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